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The OIL WEEKLY

Annual Statistical Number
Covering 1924

HOUSTON
LOS ANGELES
NEW YORK
FT. WORTH
TULSA
CHICAGO

VOL. 36. No. 4 JANUARY 16, 1925 25 Cents Per Copy

DOWN—and BACK!

With everthing in your favor PROFITABLE PRODUCTION is still an uncertainty.

Naturally, the more precautions you take—the better your chances are for a paying well—so make doubly sure of your couplings by specifying Harrisburg.

In Harrisburgs you get a coupling of forged seamless steel—no weld—no weakness. Double strength steel that prevents leaks, cracks and distortion. A Perfect thread and perfect taper that mean easy stabbing and long life—a coupling that will not strip or gall under the roughest make-up or break-out. A coupling that goes down to pay sand —and back!

Sold by leading dealers and supply houses

HARRISBURG PIPE & PIPE BENDING CO.
Harrisburg, Pa.

DISTRIBUTORS:
Harrisburg Pipe & Pipe Bending Co. of Texas, Inc., Houston, Texas.
Harrisburg Supply Co., Tulsa, Okla. Superior Tube Company, Tulsa, Okla.

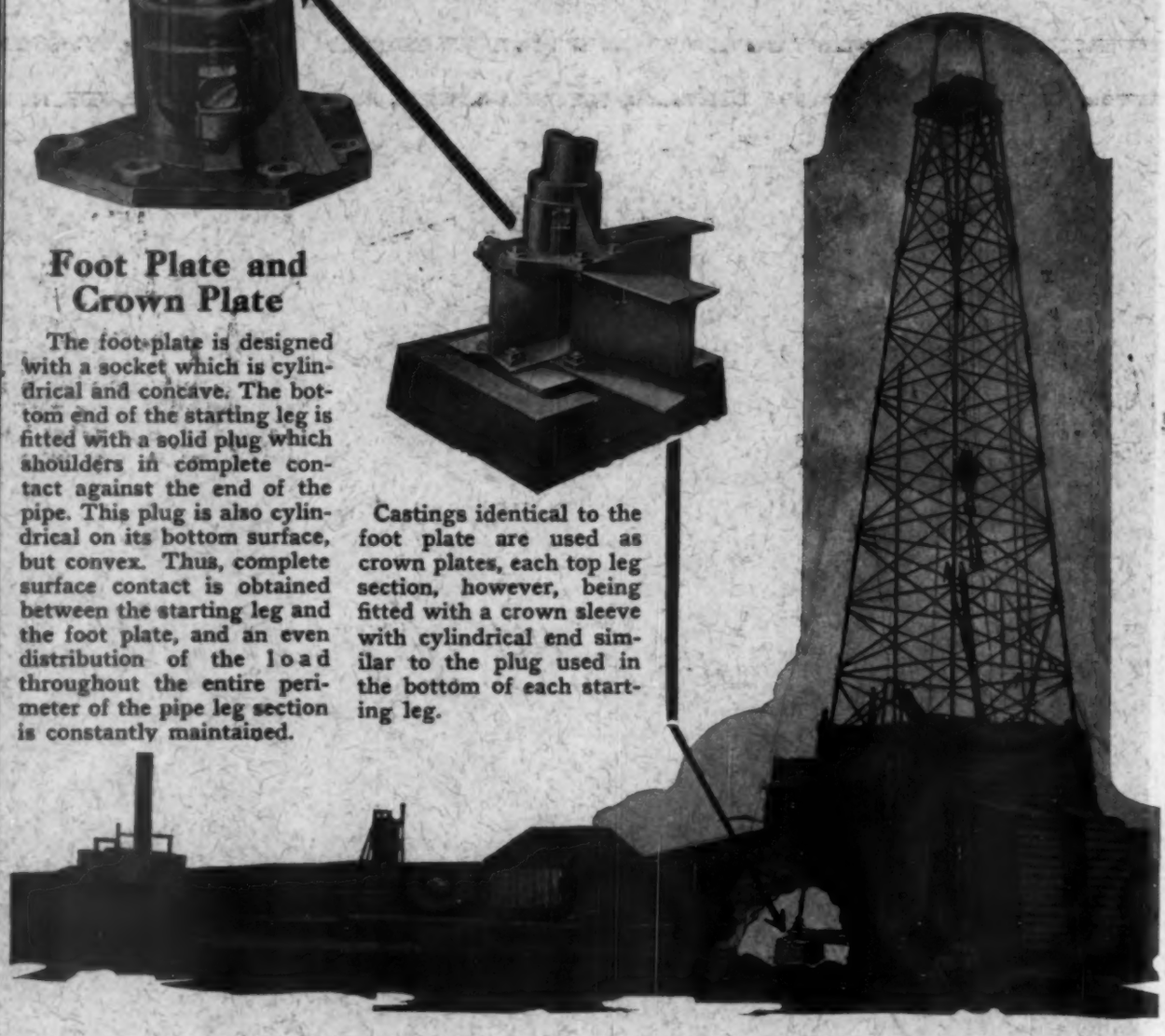
HARRISBURG
Forged Seamless Steel Couplings

One of the Distinctive Features of Superior Steel Derricks

Foot Plate and Crown Plate

The foot-plate is designed with a socket which is cylindrical and concave. The bottom end of the starting leg is fitted with a solid plug which shoulders in complete contact against the end of the pipe. This plug is also cylindrical on its bottom surface, but convex. Thus, complete surface contact is obtained between the starting leg and the foot plate, and an even distribution of the load throughout the entire perimeter of the pipe leg section is constantly maintained.

Castings identical to the foot plate are used as crown plates, each top leg section, however, being fitted with a crown sleeve with cylindrical end similar to the plug used in the bottom of each starting leg.



Ask the driller who has used one

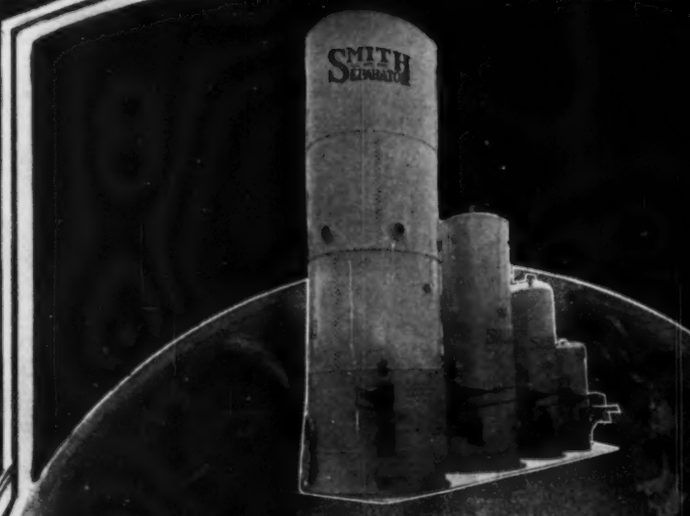
SUPERIOR TUBE COMPANY

Steel Derricks Casing Tubing Line Pipe

Kansas City, Mo.

Pittsburgh Tulsa St. Louis Dallas Casper

THE OIL WEEKLY. Issued weekly by the Gulf Publishing Co., 1716 Dallas Ave., Houston, Texas. Subscription price $1.00 per year; 10 cents per copy. Entered as second-class mail matter December 23, 1916, at the post office at Houston, Texas, under act of March 3, 1879.



SMITH
OIL AND GAS
SEPARATOR

The sun never sets on Smith Separators.

All around the world they are conserving oil and gas, eliminating fire hazard and turning waste into profit.

Type 10—Capacity 25,000 bbls. oil, 100 million cu. ft. gas.
Type 1—Capacity 5000 bbls. oil, 10 million cu. ft. gas.
Type 2—Capacity 2000 bbls. oil, 5 million cu. ft. gas.
Type 3—Capacity 500 bbls. oil, 1 million cu. ft. gas.

SMITH SEPARATOR COMPANY
TULSA, OKLA.

Chestnut & Smith Corp. Bldg., Telephone 6221

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Dallas, Texas

Colorado Office:
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Export Representative:
Oil Field Equipment Co.,
30 Church St., New York.
Cable Address:
"Oilfield." New York.

London Office:
Perkins MacIntosh Petroleum Tool & Boring Co.,
Ltd., 25 Bishopgate.
Cable Address:
"Oleborers," London

D+B

"QUALITY FIRST"

PUMPS and SUCKER RODS

are setting new standards of pumping efficiency!

The predominance of D+B "Quality First" Pumps and Sucker Rods, reaches further than local, Mid-Continent, and Eastern fields.

Their efficiency and reliability under every and all working conditions have brought about new standards of pumping efficiency that are world-wide in their effect; that have caused them to be as readily acceptable in foreign oil fields, as at home.

D+B "Quality First" Sucker Rods are made from a carbon steel of special analysis, of our own formula—a steel which years of experience and service have proved will most effectively resist rod fatigue caused by snapping, whipping, and vibration.

More oil at less expense is the problem answered by this D+B "Quality First" Pump: By comparison of its theoretical 100% efficiency against its actual performance, this pump attains as near perfection as faultless design, superior materials, and rigid manufacturing standards can make them. The renewability of D+B working barrels adds to the life and economy of these pumps.

Send for booklet "Deep Well Pumping."

D & B Pump & Supply Company

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Branch: Love Aviation Field, P. O. Box 1033, Dallas, Texas

Sales Representatives at: Casper, Wyoming; Tulsa, Oklahoma; Houston, Texas; Wichita Falls, Texas

The way READING Tubing is loaded for shipment

EACH layer is sprayed with a crude oil solution. To take up the extra thickness of couplings and thread protectors, several strips of wood are placed between each layer, which prevents sagging in the middle of the joints.

When the car is loaded, the pile is boxed at each end with 2x6 oak boards, supported by 3x4 braces, nailed to the floor of the car. The standards on each side are bound together with heavy wire.

Not only is READING GENUINE WROUGHT IRON TUBING superior to Steel but READING TUBING surpasses tubing of *any other* manufacture in finish and workmanship.

READING IRON COMPANY
READING, PA.

World's Largest Makers of Genuine Wrought Iron Pipe

OIL WELL SUPPLY CO., Distributors
STORES IN ALL IMPORTANT OIL FIELDS

Inquire at any of the 100 branches

READING PIPE
GENUINE WROUGHT IRON

Say you saw it in The Oil Weekly

Fire--Wind--Rust--

EVERY year these three demons take toll from the oil fields in derricks, men and money. FIRE burns down hundreds of wooden derricks and destroys prosperous wells. A HIGH WIND roars through the fields. Down come half the old wooden derricks in a shower of sheaves and broken boards.

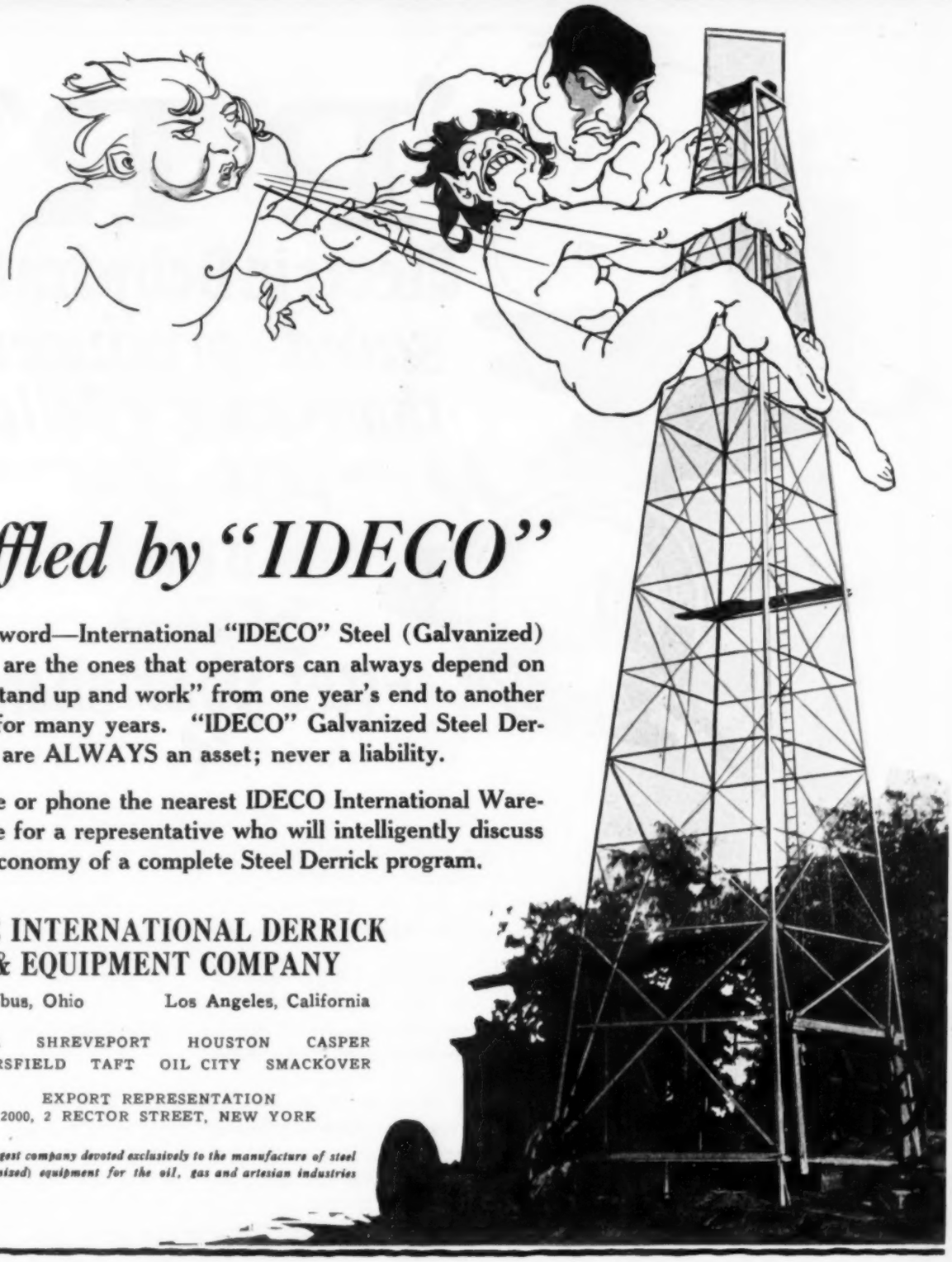
RUST, after two or three years, will weaken every piece of metal on any painted derrick. A tubular steel derrick with only half an inch of bare metal offers Rust enough of a foothold to make the entire structure "unsafe."

Unless you are protected by a derrick that defies these elements, your property will, sooner or later, fall a victim to their destruction.

International "IDECO" Galvanized Steel Derricks and Rigs are the only structures that successfully withstand the attacks of Fire, Wind and Rust. Being steel, they cannot burn. Presenting little or no wind resistance, they do not blow over. Because they are heavily galvanized by the "Hot Dip" process, they are thoroughly armored against corrosion—rust.

INTERNATIONAL STEEL IDECO DERRICKS
(GALVANIZED)

Say you saw it in The Oil Weekly



Baffled by "IDECO"

In a word—International "IDECO" Steel (Galvanized) Rigs are the ones that operators can always depend on to "stand up and work" from one year's end to another and for many years. "IDECO" Galvanized Steel Derricks are ALWAYS an asset; never a liability.

Write or phone the nearest IDECO International Warehouse for a representative who will intelligently discuss the economy of a complete Steel Derrick program.

THE INTERNATIONAL DERRICK & EQUIPMENT COMPANY

Columbus, Ohio Los Angeles, California

TULSA SHREVEPORT HOUSTON CASPER
BAKERSFIELD TAFT OIL CITY SMACKOVER

EXPORT REPRESENTATION
2000, 2 RECTOR STREET, NEW YORK

The largest company devoted exclusively to the manufacture of steel (Galvanized) equipment for the oil, gas and artesian industries

INTERNATIONAL STEEL IDECO DERRICKS (GALVANIZED)

"P. R."

Electric Dehydration saved producers thousands of Dollars —last year—

Did you get your share?

1925 is another year and probably a greater saving to producers will be effected this year than last year. If you are not fully acquainted with the "P R" Electrical Dehydration Process, better write us and get your share this year.

Though "P R" Dehydrators are established in nearly every sizable field in the world, encountering widely varying emulsions, pipe line requirements, and weather conditions, they are achieving uniform success in all instances.

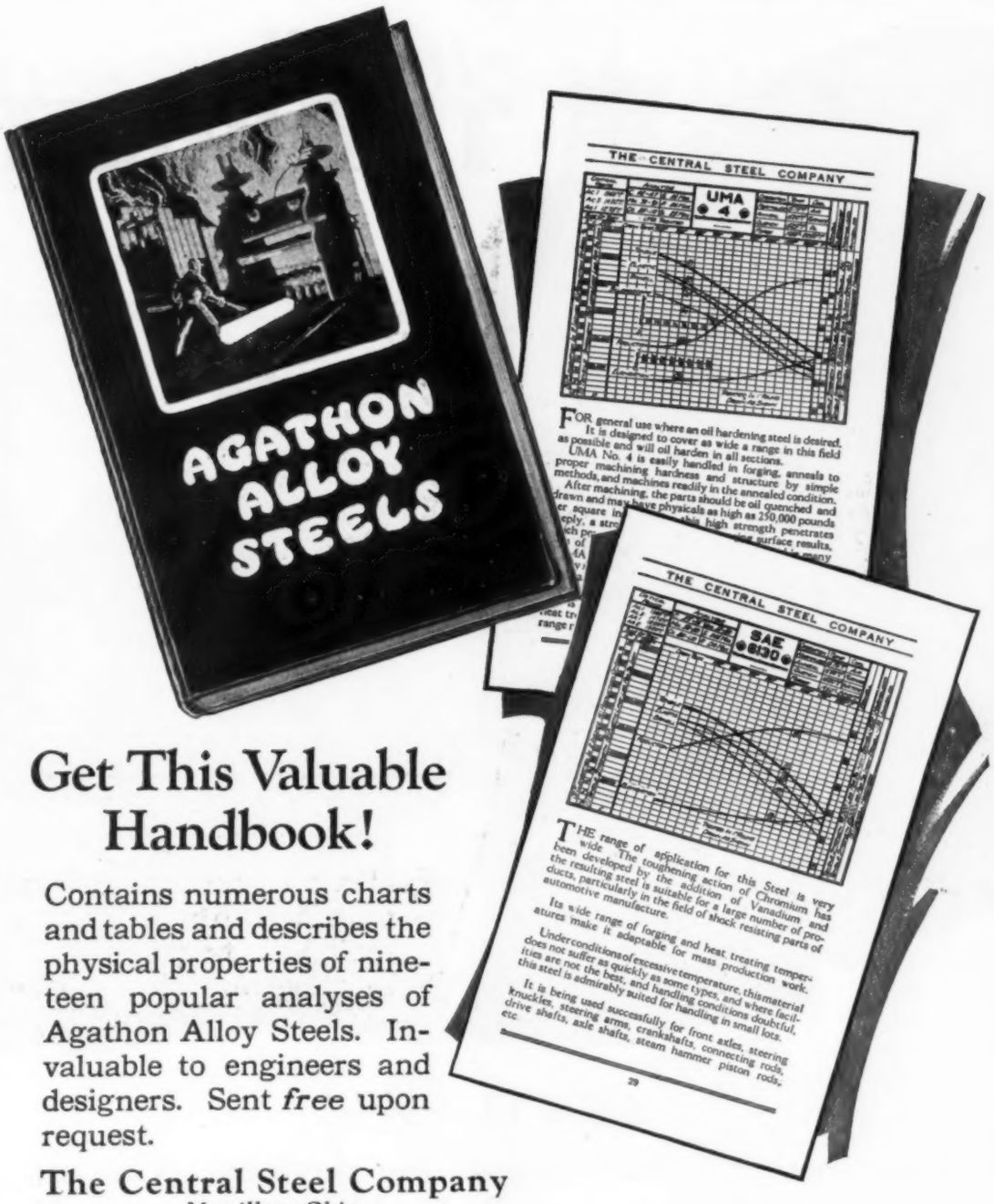
Their simplicity of construction and operation make them practically free from mechanical troubles, and the total cost per barrel is lower than any other process of treatment which recovers all the oil from the emulsion, and restores the whole to its original gravity. If you are not fully acquainted with "P R" Dehydration, write for our descriptive booklet.

Petroleum Rectifying Company of California

308 Union Oil Bldg.,
Los Angeles, California

336 Humble Building,
Houston, Texas

Say you saw it in The Oil Weekly



Get This Valuable Handbook!

Contains numerous charts and tables and describes the physical properties of nineteen popular analyses of Agathon Alloy Steels. Invaluable to engineers and designers. Sent *free* upon request.

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Massillon, Ohio

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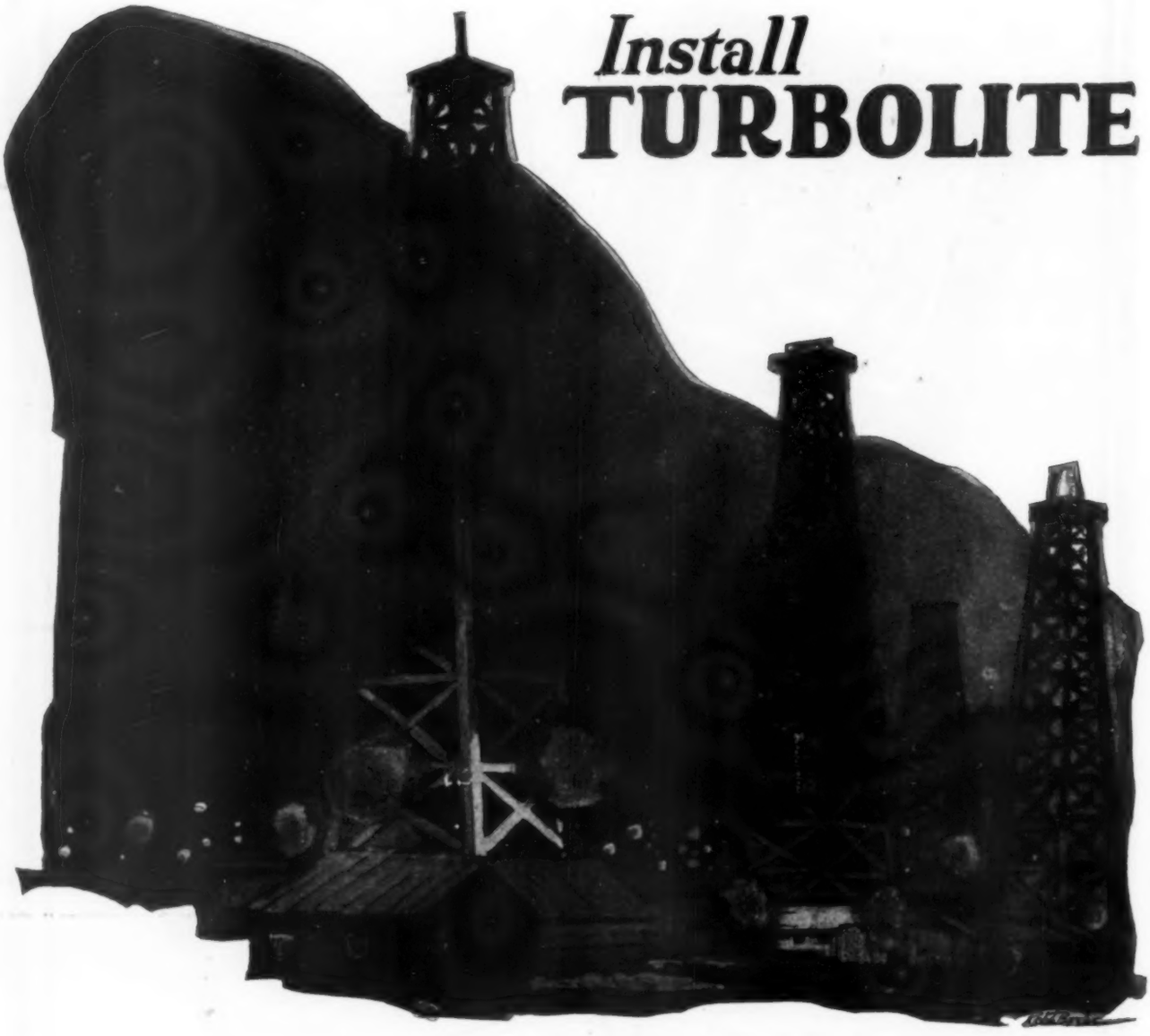
Peoples Gas Bldg., Chicago
University Block, Syracuse
Book Building, Detroit
Aeolian Bldg., New York
Widener Bldg., Philadelphia

AGATHON ALLOY STEELS



Install TURBOLITE

FEATURES:

Requires no outside regulating devices. Can be quickly and easily installed. Uses steam only in proportion to load. Is self governed. Will give maximum of service with a minimum of attention. Is entirely enclosed and can be operated in exposed locations. Has few wearing parts.

Wherever LUCEY ***there's Oil***

Say you saw it in The Oil Weekly

Steam Turbo-Generators

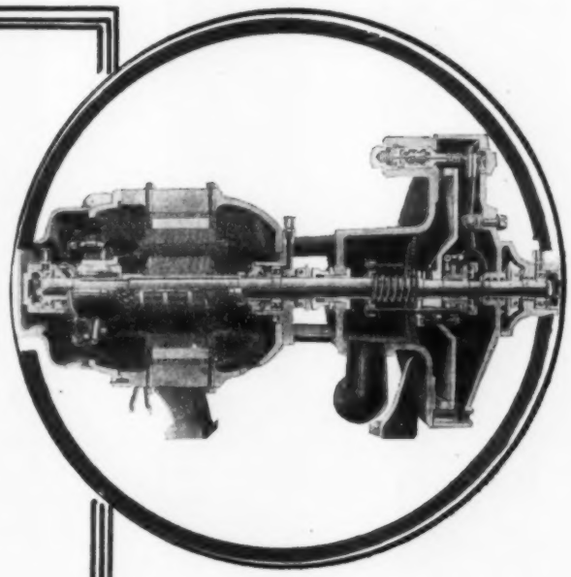
and be sure of ample electricity for your lighting requirements

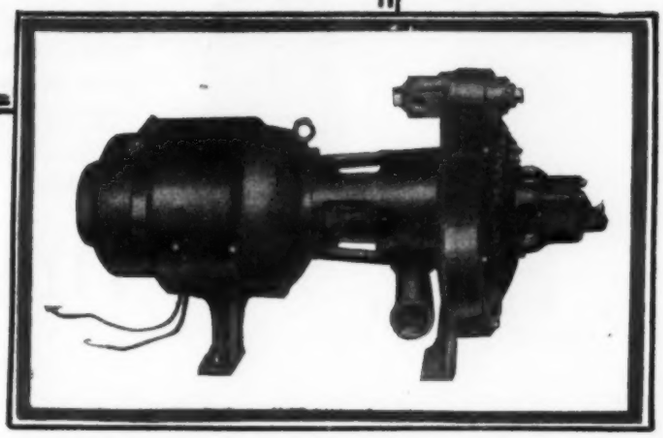
A husky, rugged machine that will give an abundance of brilliant electric light with the lowest steam consumption regardless of the load placed on it. Our model K 3 KW turbolite illustrated is designed to meet the increasing requirements of the oil fields for a generator of sufficient capacity that will take care of all lighting requirements without overloading.

If you use steam, you can use the Lucey Turbolite advantageously and obtain ample electricity for your lighting requirements.

The Turbolite Steam Turbo Generator is built in one self-contained unit and requires no special foundation. It is self-regulating—no switchboard is necessary. To install it you need but run a steam pipe from the boiler and connect the wires to the lights.

LET US SEND YOU ALL THE DETAILS



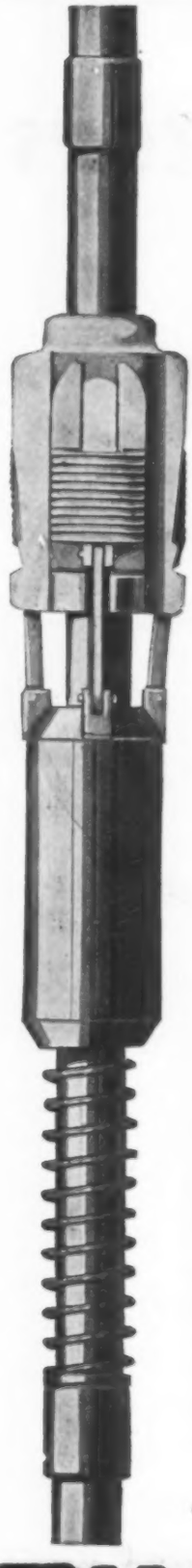


Lucey Manufacturing Corporation

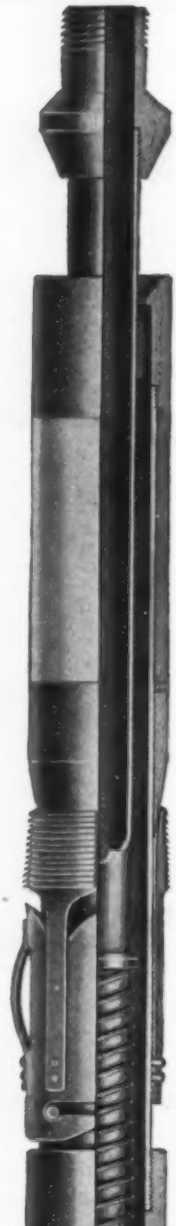
Main Office and Works

CHATTANOOGA TENNESSEE

Say you saw it in The Oil Weekly

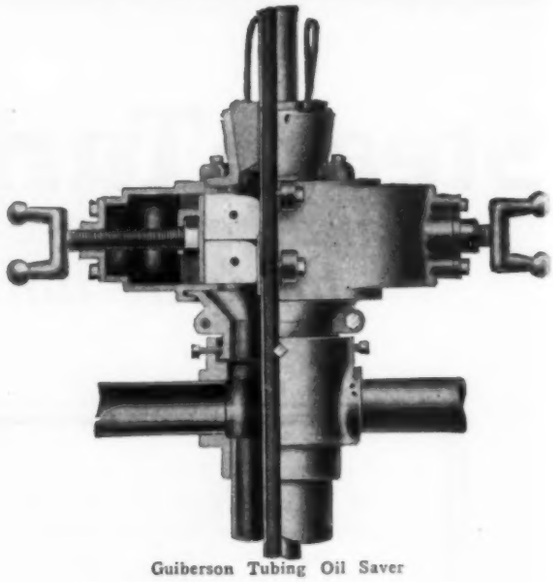


Guiberson Tubing Catcher



Guiberson Control Head Packer

Guiberson Underreamer



Guiberson Tubing Oil Saver

BUILT ON

What is Back of

The Guiberson business has been built on a ROCK!

No Guiberson tool has been offered until the need for it was obvious. None has been sold until perfected in design and materials and proved by field tests in the hands of ultimate users. We could conceive of no stronger policy.

Result! The Guiberson SWAB, after 18 months, is doing over half the world's swabbing.

THE GUIBERSON

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OKLAHOMA BRANCH:

CALIFORNIA BRANCH:

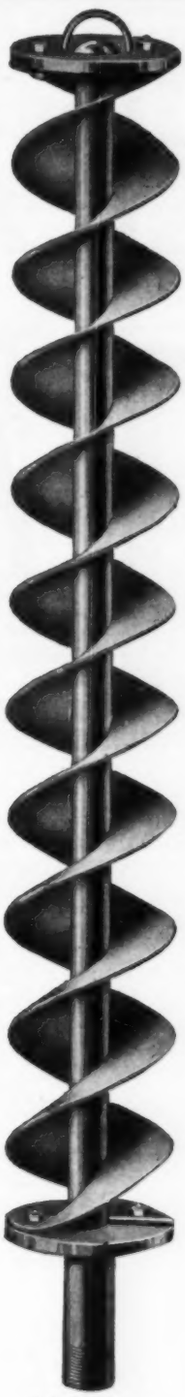
318 First Nat'l Bank Bldg., Houston

THE GUIBERSON

Say you saw it in The Oil Weekly

Guiberson Tool Joint Tong

Guiberson-Mills Casing Tong



Spiral Bottom Water Plug

Guiberson Swab

A ROCK!

Guiberson Tools

The Guiberson TUBING CATCHER has saved millions by educating the world to use Tubing Catchers.

The Guiberson CONTROL-HEAD PACKER is the ONLY packer which can be run in wells against heavy flows.

EVERY Guiberson product has filled a need—has meant bettered methods—has brought great savings.

Look into the merits of any Guiberson product. Then order through your supply company.

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1737 E. 7th St., Los Angeles

506 Trust Building, Newark, O.

CORPORATION

Say you saw it in The Oil Weekly

Those Who Use the Best, Always Specify

THE LAYNE

PATENT

Keystone Galvanized and Bronze Wire Wrapped Screen

Lead Cone and Canvas Ratchet Packers

Lead and Canvas Double Seal Type Ratchet Packers

Setting Tools

All-Canvas Pin Packers

All-Canvas Screw-Off Packers

Mother Hubbard Packers

Lead Seals

Lead Seal Sealing Irons

Special Back-Pressure Valves

Lead Face Collars

Breakout Wash Rings

Cone Shaped Screw Wash Rings

One and Two Thread Setting Nipples

Wood Wash Plugs

Swivels

and, a little later on — *A Real, Honest to Goodness* **Back-Up Tong**

24 HOUR SERVICE, 7 DAYS IN THE WEEK

LET US SEND YOU OUR LITERATURE

The Layne & Bowler Co.

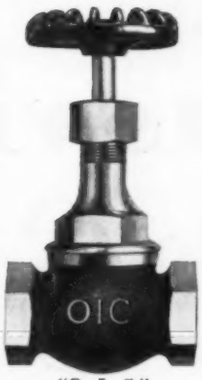
HOUSTON, TEXAS

If Continental Sells it

QUALITY SERVICE PRICE

There is no Better

"O. I. C." Standard Gate Valve



"O. I. C." Composition Disc Brass Valve

"O. I. C." Brass Nickel Bronze Disc Globe Valve

"O. I. C." Standard Brass Gate Valve

"O. I. C." Extra-HEAVY Wedge Gate Valve

Ohio Injector Company's GATE VALVES

Characterized by the fine materials and workmanship which have made this company's locomotive appliances the standard of value in their field. Better valves are not made.

"Everything for the Contractor, Producer and Refiner"

THE CONTINENTAL SUPPLY COMPANY

General Offices: St. Louis

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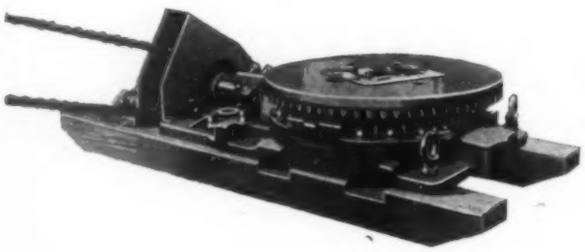
MORE THAN 70 STORES IN THE OIL COUNTRY

CONTINENTAL

Say you saw it in The Oil Weekly

A Great Big Step Forward

The Titusville no. 6 Rotary



Realizing the demands for better equipment for deep drilling, we have built into the No. 6 these added features:

Higher carbon in steel castings throughout; the holddown brackets extended almost entirely around the table, completely enclosed the raceway to keep out mud; an extra long keyway on the pinion shaft so that the sprocket can be accurately lined with the Drawworks sprocket; new conveniences built in for keeping the Rotary clean and well oiled.

The Lightning type drive bushings stay put when spudding, and ride the stem when coming out of the hole.

Combine this Rotary with a No. 6 Four Speed Acme Drawworks and a Titusville Twin Drilling Engine and you have an outfit that is several strides ahead.

The TITUSVILLE IRON WORKS Co.
TITUSVILLE ~ PENNA.

TITUSVILLE EQUIPMENT
Oil Country Boilers
Steam Drilling Engines
Tice Gas Engines
Flapper Valve Pumps
Pumping Powers
Twin Drilling Engines
Rotary Machines Rotary Drawworks
Swivels Slush Pumps
Crown Blocks
Traveling Blocks
Rotary Drilling Specialties

TITUSVILLE OIL COUNTRY MACHINERY
RUGGED ~ ENDURING

AFFILIATED COMPANIES FOR DISTRIBUTION
For Mid-Continent, Eastern, Western and Coastal Fields: The Continental Supply Co.
For California: The Republic Supply Company of California
For Export: The Continental Well Supply Company, No. 2 Rector Street, N. Y. City

"UNITED"
IRON WORKS INC.
FOR SERVICE

Brown Bubble Baffle Tower

For Absorption, Fractionation and Distillation

The Brown Bubble Baffle Tower has large vapor areas and a spirally directed liquid flow. Can be installed in existing tower shells without removing heads. Can be readily inspected and cleaned internally without disturbing shell or insulation. And its cost is lower than any existing type of Bubble Tower constructed.

OTHER "UNITED" PRODUCTS

Storage Tanks	Pipe Fittings	Mechanical Refrigeration
Water-Seal Top Tanks	Pipe Line Supplies	Centrifugal Pumps
Complete Refineries	Producing Equipment	Deep Well Pumps
Towers	Refining Equipment	Hoists of all kinds
Stills	Special Forgings	River Clamps
Condenser Boxes	Special Fittings	Fore Coolers
Agitators	Special Castings	Structural Steel
Loading Racks	Tanks of all kinds	Special Equipment

A VALUABLE SERVICE—FREE

Expert "United" Engineers will be glad to counsel and advise with you on your needs. Write for full information, and this valuable service too.

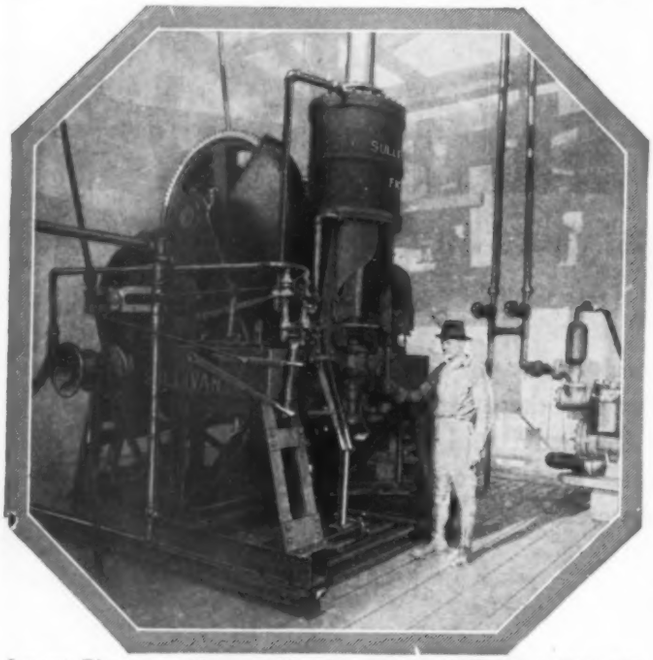
"UNITED"
IRON WORKS INC.
FOR SERVICE

TULSA DALLAS KANSAS CITY LOS ANGELES

Say you saw it in The Oil Weekly

SULLIVAN DIAMOND CORE DRILLS

the modern method of Oil Field Exploration



Largest Diamond Drill ever built. The Sullivan "FK," a standard machine designed particularly for deep oil field drilling. Capacity 2 in. hole to 7,000 ft., 4 in. hole to 5,000 ft., or will set 4 in. casing at 4,000 ft. Hydraulic feed, 40 tons pressure up or down, weight on frame 10 tons.

(1) Deep Tests

Use the Diamond Core Drill for deep tests in virgin territory, (to 5,000 feet.)

The cores secured will show accurately the presence or absence of oil, and the thickness and relation of all strata. One Diamond drill hole will frequently give as much information as a whole series of borings with drills of other types.

The drill will handle rapidly any formation encountered, giving you speed in either "cable" or "rotary" ground. It will handle mud fluid. It will control heavy rock or gas pressure, without damage or loss.

(2) Structure Drilling

Why guess at the right spot for a well, when the geologist has no outcrops to map from?

Up-to-date Companies now block out their acreage with shallow diamond drill holes. The relative depths of the "Key-bed," as found by the drill cores in a pattern of holes, enable geologists to draw an accurate map of the anticline, and point to the exact site where a well will strike the "high."

30 to 40 Sullivan Drills have been used for this work in Oklahoma and Texas in the past two years. Some companies own two to a dozen and keep them constantly busy.

In this exploratory work, the Sullivan Diamond Core Drill is unequalled for accuracy, speed and portability. It is a precision tool, the result of 50 years of experience and improvement.

Portability

The light weight and compact design of Sullivan Diamond Drills make them very desirable for foreign fields. For a given depth, a Diamond Drill outfit will weigh half as much, or less, as a rig of either cable or rotary type. Heavy strings of large casing are not necessary.

Sullivan Drills have been used successfully for oil exploration in Colombia, Venezuela, Ecuador, Mexico, Northern Africa, India, Borneo, Australia, etc.

Sullivan Drills were invented in 1875. They have been improved many times, and are still the most modern method of prospecting for minerals. They are built in Capacities from 300 to 7,000 feet in depth and for cores from 1 to 7 inches in diameter. Mining men and engineers (or their fathers), in almost every country in the world have used Sullivan Diamond Drills and depend on their accuracy, rapidity and low operating cost. Experienced drill operators will be sent with Sullivan drills when desired.

Ask for Catalog 4280-0

Compressors, Air Lift, Diamond Drills, Sharpeners, Furnaces, Portable Hoists, Coal Cutters, Rock Drills, Drilling Contractors

SULLIVAN TRADE MARK
MACHINERY COMPANY
122 So. Michigan Ave. Chicago.

30 Church Street, New York
Dallas, Tulsa, Garber, Denver, San Francisco, Los Angeles
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London, Salisbury House E. C. 2. Calcutta, Jessop & Co., Ltd., 93 Clive St. Paris, 18 Ave., Parmentier. Mexico City, Edificio Oliver, No. 3. Santiago, Chile, Casilla 27

Sullivan "CN" Diamond Core Drill, used largely for Structure Drilling. Capacity in Depth, 1200 Feet; Diameter of Core, 2 inches.

Butler Bolted Pressure Flow Tank, showing interior construction and method of reinforcement

You increase your Oil Profits very easily

Forty gallons a day, sometimes 70 gallons, of oil float away in vapor—even from a small tank—experts say, unless they are held in the tank. Besides, the dollars you already have are stealing away in gasses—decreasing the gravity of your oil—unless they are arrested.

Your profits are lowered—immeasurably!

With Butler Bolted Tanks

your profits can be increased immensely—very easily. You can increase your output 40 to 70 gallons a day even on small 250-barrel tanks because they hold the valuable gasses in the tanks and maintain your gravity. They are built for that particular purpose. Larger tanks increase profits in proportion.

Speedy service

—besides making a vapor tight bolted tank we also feature quick service. These dealers are advantageously located:

M. & V. Tank Co., at Wichita Falls, Vernon and Olney, Texas
Drane-Humphrey Co., at Fort Worth and Big Lake, Texas, Tulsa and Holdenville, Okla.
May Tank & Supply Co., at Casper and Salt Creek, Wyo.
M. A. Trimmer at Blackwell, Oklahoma
Wilson Tank & Culvert Co., at San Antonio, Tex.
Butler Manufacturing Co., at Los Angeles, California, Bartlett Building, Telephone 65457

And attractive prices

Our tanks give profitable service. Our deliveries are quick. Our prices are attractive.

Ask the dealer nearest you for quotations and details, or write or wire us. It will pay you to know our interesting offer.

Butler Manufacturing Co.

Kansas City, Mo. **Minneapolis, Minn.**

Gulf Refining Company

OKLAHOMA
TEXAS
LOUISIANA

Refiners of PETROLEUM

GASOLINE
REFINED OIL
NAPHTHA
GAS OILS
PARAFFINE WAX
ASPHALT
FUEL OIL
LUBRICATING OILS
CYLINDER
ENGINE
CORDAGE

Red and Pale Paraffine Oils

General Sales Offices: PITTSBURGH, PA.

District Sales Offices:
NEW YORK, HOUSTON, ATLANTA, BOSTON, NEW ORLEANS
PHILADELPHIA

Ocean Terminals

Beverly, Mass.
Gibson's Point, Pa.
Port Tampa, Fla.
Port Arthur, Texas

Bayonne, N. J.
Savannah, Ga.
Gretna, La.
Magazine Point (Mobile), Ala.

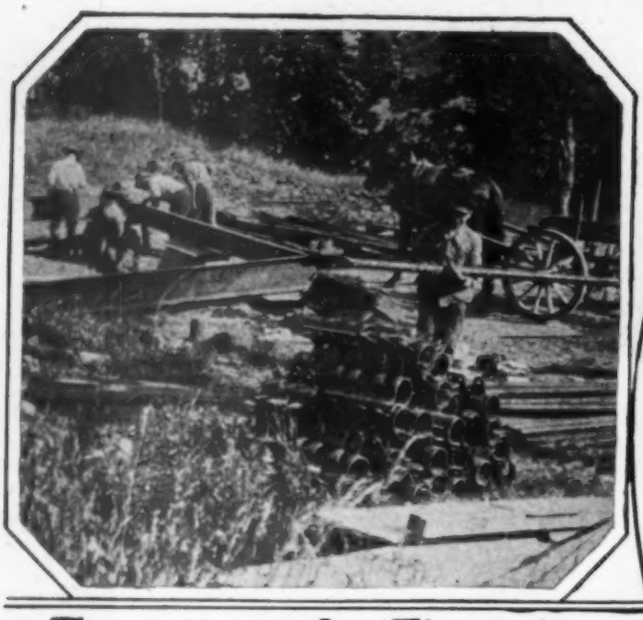
Providence, R. I.
Jacksonville, Fla.
Galveston, Texas

NATIONAL
Oil Field Equipment

Distinctively

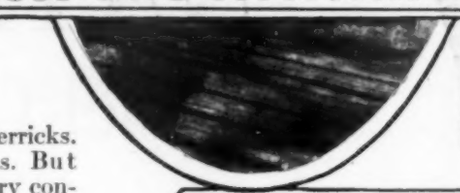
BLUE

The National Supply Companies



View No. 1 (extremeleft) Foundation members being assembled.

Erecting the First American Derrick in France



View No. 2 (above) Shows methods used in erection, making a tripod of the lower braces for hoisting and putting the heavy 27-lb. leg sections in place. Native labor used.

Wildcatting Again!

DIFFERENT countries, different styles—even in derricks. All have their preferences and peculiar conditions. But Moore derricks go everywhere, adapt themselves to every condition of service and climate, from the frozen North to the blazing tropics. Moore derricks are truly universal, because of their superior strength and safety; their fireproof, windproof, insect-proof, and decay-proof construction; and their application to every drilling job, be it light or heavy.

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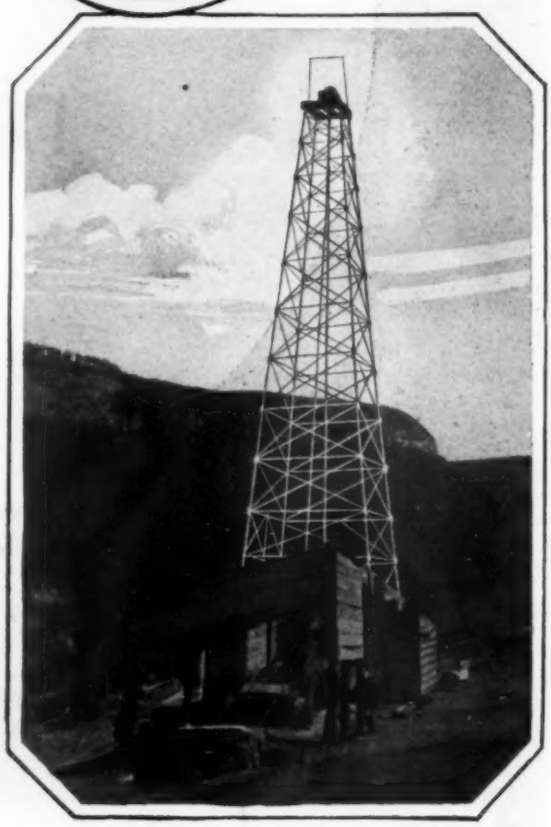
Catalog on Request



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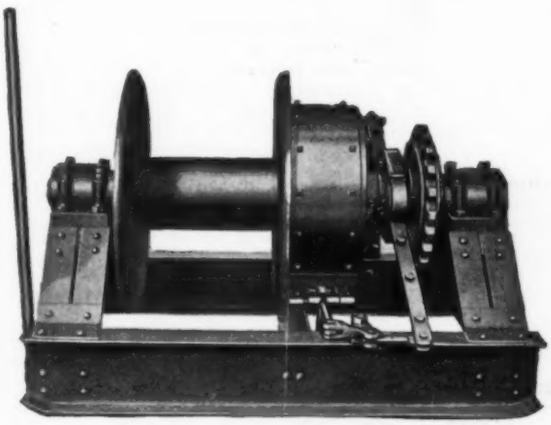
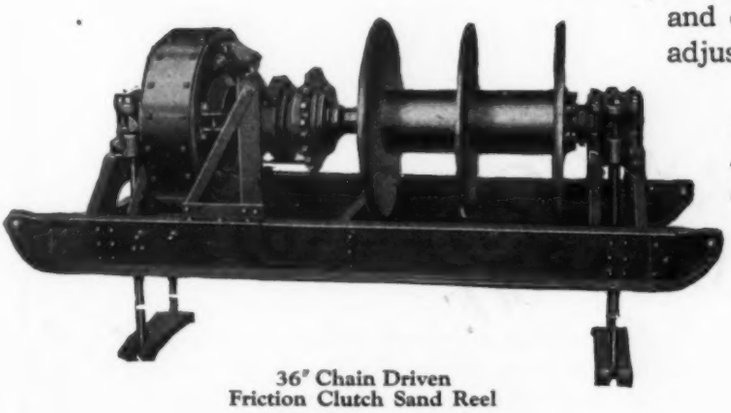
The above is taken verbatim from one of the many reports in our files, all indicating the perfect working of Parkersburg Chain Driven Sand Reels and Bailers.



26" Friction Clutch
Chain Driven Bailer



36" Chain Driven
Friction Clutch Sand Reel

And perfect working of these Machines means economy wherever they are used.

Economy of time because the bailing operation is speeded up to an almost unbelievable degree.

Economy of materials as there is no contact with or wear on the Band Wheel.

No damage to belt, and sand line is safely stored and protected.

Economy of human exertion because there is no necessity for the operator to spend all his strength in maintaining friction between Sand Reel and Band Wheel, nor does he have to contend with the usual jars and jolts.

The line includes a size and type for both Rotary and Cable Tool work and for depths of from 500 to over 3000 feet.

Installation is simple and operation is easy and does not require constant attention and adjustment.

Let us tell you more regarding these perfected, durable, efficient and above all—economical Machines.

Ask for Booklet "Cut Your Bailing Time in Half"

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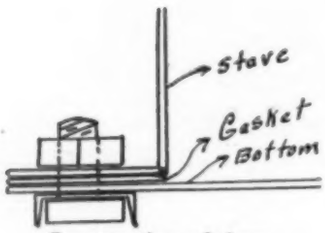
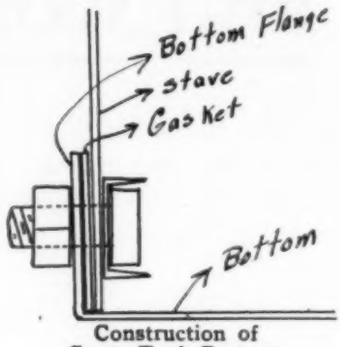
Superiority of Gantz Construction On Bolted and Welded Tanks



Construction of Any Tank Bottom



Construction of Gantz Tank Bottom

Sketched here are two types of construction of tank bottoms. The Gantz bottom protects the staves against corrosion. Gantz bottoms also form a joint that makes a tank really tight. And the deck is built the same way on Gantz Tanks.

The bolts in a Gantz Tank must be cut off to give way, while in other makes all that is necessary is to strip the threads. Due to the construction, Gantz Tanks are easily and quickly erected and reset.

Every inch of a Gantz Tank is made of Armco Ingot Iron which is the longest lasting material made for tank purposes.

ARM CO.
REG. U.S. PAT. OFF.

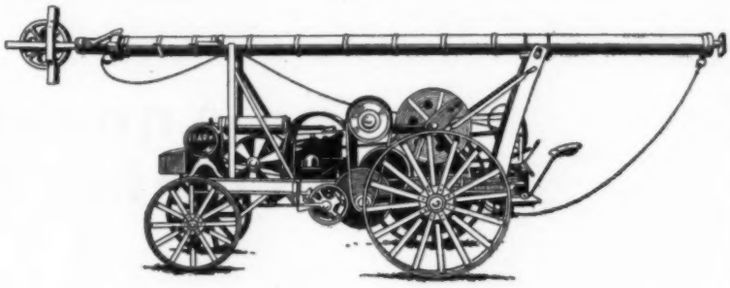
From One Barrel to Two Thousand Barrels Capacity

GANTZ TANK COMPANY

SAPULPA, OKLAHOMA

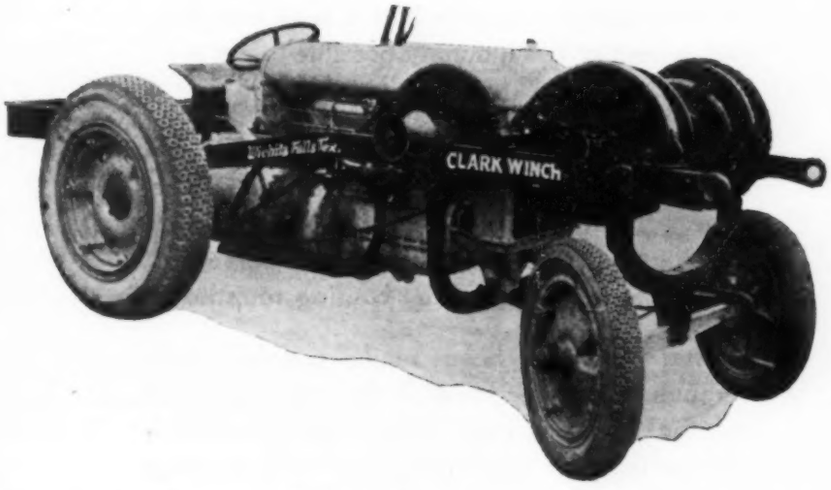
The Clark Built Pulling Machine And Tractor Winch

The Clark Pulling Machine pulls rods, tubing, drills wells deeper and bails out the wells. Power furnished by a thirty horse-power gasoline engine.



It is economically operated, soon saves its first cost and is the most efficient machine offered for this kind of work. The engine is a 4-cylinder motor built in four models. Has two speeds forward and one reverse.

The Clark Tractor Winch with new improvements is the last word in oil field efficiency. In the winch all gears have been eliminated and an all-chain-drive system delivers power without friction. A service foot brake and the hand emergency with its ratchet guarantees positive safety.



The Winch has a large drum capacity, handling 2100 feet of one-half inch line or 2800 feet of 7/16 inch line with the step-up drum in place; or 3200 feet of 7/16 inch line with the step-up drum removed.

The Winch is controlled from the tractor seat, the operator being in full view of his work at all times. Made of high grade steel, machined and case hardened, the double step jaw clutch is easily engaged and virtually fool proof.

Both of these Clark Built Machines are in use by some of the largest companies in the field and giving satisfaction in every way.

Write for detailed information.

CLARK MACHINE COMPANY

WICHITA FALLS, TEXAS

Say you saw it in The Oil Weekly

A SERVICE FOR YOU—

The Annual Statistical Number Covering 1924

The bringing together under one cover of a complete resume of operating results in the Oil Industry for the past year makes this issue a most valuable addition to your permanent records. Every available source has been consulted in compiling this data and it is as complete and correct as it is humanly possible to get it.

Whether it is a barometer of the crude market that you want or an insight into prospects for future field work you will find it in this issue. If you are either executive or field man the charts and tables can be made to serve you advantageously during the coming months.

And this has been made possible only through the co-operation of the concerns listed on the opposite page whose advertisements themselves offer unparalleled service in meeting your operating equipment requirements for 1925.

Make Dividends On Your Subscription Investment By Using This Service

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TRANSIT PUMPS
On the Panama

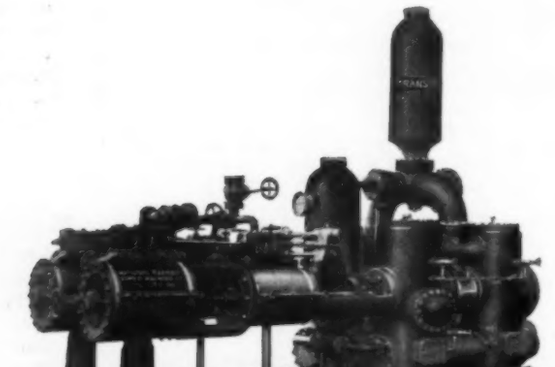

Fig. 743. 14 and 20 x 12 x 18" Compound Duplex Plunger Pump for working pressures up to 300 lbs. Capacity 2200 barrels per hour.

Back in 1914, the Government ordered four of these pumps for use on the Panama Canal. They handle fuel oil from cargo oil ships to storage tanks, from storage tanks to steamers and motorships, and from storage tanks to tanks which supply shops and power houses.

This year two more units were necessary. Nine years of satisfactory performance of the first four units was the principal reason for specifying TRANSIT PUMPS for the last two.

Send for our Bulletin 104-A "Outside Center Packed Pumps"

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THE OIL WEEKLY

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SPENCER W. ROBINSON, *Editor*

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The OIL WEEKLY wants only such subscribers as are engaged in the oil producing or pipe line business, or sub-branches of the producing and pipe line business. It has no desire for investor circulation, and it reserves the right and will exercise the right to reject subscriptions coming from persons whose interest in the oil industry is through the purchase of oil stock.

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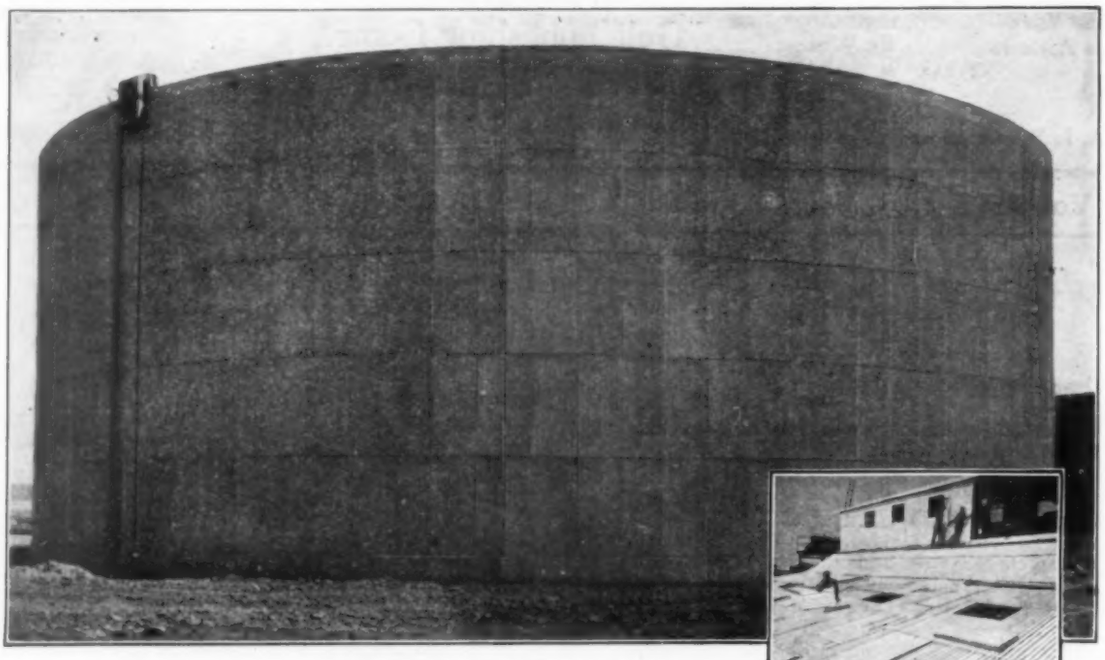
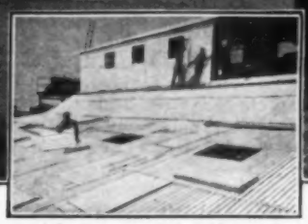


One of 25 — 80,000 bbl. tanks housed with Transite. Cuts evaporation losses and protects against fire.



Transite is the logical roofing and siding for skeleton frame buildings. It never needs painting.

Reduces your fire hazard and cuts maintenance costs

LITERALLY a sheet of corrugated rock, Transite corrugated asbestos roofing and siding withstands weather, corrosion and even the hot flame of a blow torch.

Use this material to construct fire barriers, housings for aerial condensers and rundown lines, storage tanks, etc.

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THE OIL WEEKLY

An International Oil Publication for Oil and Gas producers

Up to the Industry

IF the Oil Industry fails to prosper during 1925, the fault will lie within the Industry.

The year begins with the rosy optimism which has kept hope alive through trying periods. But the lessons learned during the past two years have expression with the utterances of optimism. On every hand the word of caution is included with bright prophecies for the future.

Analyzing the situation as it exists one must wonder if the oil business is now emerging from chaos or has merely become accustomed to it. In either event, the men who guide its destinies are so imbued with the necessity for caution that we may reasonably expect that future development will be along more sane business lines. The production of oil will be more scientifically business-like, with less of the spectacular which has made of it a game in which plungers have risked their substance in such manner as to inspire the Wallingford's to lead the gullible investors to the slaughter.

The ever present danger remains. Too much optimism at this time or at any time during the coming months, can easily send the situation back along the ways of 1923 and 1924. The antidote is caution, and self control when the urge to intensive drilling follows an upward turn in price.

The world needs oil. And current rumor has it that the world's business affairs are so shaping themselves that it can have what it wants. But even under the most prosperous business conditions there are limits to the amount of any commodity which may be absorbed. To prosper, the oil industry, along with other business, must so control its output as to keep within the reasonable limits of what can be taken of its products.

Along with the better business conditions which permits the assimilation of oil in greater volume in the established uses, comes an expanding demand, as more oil is used in heating and in industrial and marine power plants. And with these increased uses comes the necessity for holding the price of crude within limits which will permit those uses to expand.

In other words, the industry is faced with the necessity of finding a price level for its product which will permit a share of prosperity and still remain within the range of competition with other fuels into whose fields it comes as a substitute.

The one point to be kept in mind is that the world will compete for oil only so long as there is a reasonable supply. After that oil must compete with itself for a market. In the first instance the price trends up, and the other it goes down below the reasonable cost of production.

Those who will venture to guess on the future hold out the hope that no bonanza fields are pending. It is believed by many well informed that the new fields of the future will be found under conditions such as will hold in check a flood of cheap oil. This for the reason, perhaps, that future supplies will be secured with greater difficulty and in regions less accessable.

If one might venture advice, the industry's best opportunity of making the most of what promises to be a prosperous year would be to economically administer the properties which are producing and thus secure full benefit of the promised increase in price, and extend to wider activities only as deliberate business judgment should dictate.

Oil Has Rosy Horizon As New Year Dawns

However, caution and discretion advised by those who see future of industry in its own hands

THAT the oil industry enters 1925 under encouraging circumstances is the concensus of opinion expressed in statements made by representative men of the industry in reply to a request for such statement made by The OIL WEEKLY. That there is no over optimism, however, is shown by the words of caution expressed in the same connection. According to these observers, the prosperity of the industry is in the hands of the men who make up the industry.

The following are some of the interviews:

Max W. Ball, President Marine Oil Company, Denver:

"If the oil industry holds itself in hand it may finish the year in far better shape than it begins, but it must keep its enthusiasm under the rigid control of its judgment. There is no immediate prospect of any great decline in production. Apparently Oklahoma and Kansas can come close to making up losses now foreseen elsewhere, and if prices are raised too soon, they will do so. Despite the prospective short life of Wortham and inevitable declines in certain other fields, the production on June first, assuming a few price advances, will probably be within easy range of that on New Year's Day. The industry will not be in sound condition until stocks are materially reduced and such a reduction is not in sight to the operator of average vision.

"The hopeful factor and the one that cannot yet be evaluated is consumption. If the stock market and other signs indicate as they seem to do an unprecedented industrial revival, consumption of oil products may mount at a rate that none of us now dare to hope and the oil industry may at last reattain a state of genuine prosperity.

C. J. Wrightsman, President Wrightsman Petroleum Company, Tulsa:

"The oncoming year promises better returns to the petroleum industry than afforded the past several years, but the future reward will gradually become more restricted to experienced people, whose economic judgment and managerial skill is demandable in expensive deep-drilling tests. Such processes of elimination of those who would be but mere rank speculators on the pocketbooks largely of the unsophisticated public augur well for the better stability and co-operation of the oil industry. The remarkable increased uses of petroleum of late, the broadening demand of the householder for fuel oil for domestic purposes and the growing adaptation of ships to oil burners are increasing factors of petroleum consumption, gradually and definitely broadening the market demand. An early and drastic under-production of oil would be very harmful to the industry by causing new market purchasers to abandon their hope and confidence in petroleum as a fuel. The Wortham field, therefore, broadly speaking, is beneficial instead of being detrimental to the future well being of the petroleum industry.

"To the conservative, experienced, and cautious operator, the year 1925 should be essentially inviting, but to the oil stock selling promoter and financially improvident speculator, the present and all future years will probably prove regrettable for petroleum exploitation."

George A. Dye, Vice President H. F. Wilcox Oil and Gas Company, Tulsa, Oklahoma:

"From all indications I am of the opinion that the oil industry is on the verge of a period of prosperity, believing that nothing short of a miracle will retard its gradual improvement throughout the year and with the anticipated increase in consumption, better prices for crude oil should be had."

John L. Gray, President and General Manager Shaffer Oil and Refining Company, Chicago:

"We believe that the year 1925 will record much more stable conditions in the oil business with reasonably higher prices for both crude and refined products."

Paul Shoup, President Associated Oil Company, San Francisco:

"My view is that the measure of prosperity the petroleum industry of the United States has during 1925 is largely within the control of the industry itself. There is certain to be a very marked increase in consumption over 1924 because of the greater purchasing power of the country, particularly in the farming section. The industry needs to avoid, however, that recurrent optimism that blooms every spring with promise of advancing prices stimulating beyond needs both production and refining, with the result that by midsummer, it fades into despair.

"In all probability, California production is near its peak for 1925 at this time, or will reach it in any event within the next two or three months, even though the Dominguez field has a greater volume than we anticipate. There are no new fields in sight to threaten an over supply. We still have production beyond the consumption west of the Panama Canal which means increasing our storage, or continued sales on the Atlantic coast, but as I find it, the feeling here is that unless sales can be made on the Atlantic coast, with assurance of profit above our field market prices, we should and will store our oil at home. The promise for the Pacific Coast for 1925 is unquestionably much better than the performance for the last six months of 1924.

C. C. Herndon, Vice President Skelly Oil Company, Tulsa, Oklahoma:

"The industry may entertain renewed confidence, provided producers and refiners will exercise restraint upon operators and not deliberately produce more crude and refined oils than consumption requires. The present trend toward reduction of stocks can be continued if the industry will permit. Consumption in 1925 will far surpass consumption in 1924, and the effort of the industry to hold production, for a while, below consumption, should not be difficult. We can, and I believe will, regain this year a condition of stable prosperity. The situation is altogether in the hands of the industry and it will have only itself to condemn if it suffers again the losses brought upon it by overproduction."

Roy B. Jones, President Panhandle Producing & Refining Company, Wichita Falls, Texas:

"The outlook for the petroleum industry for 1925, in my opinion, is very bright. By this I do not mean that I look for a year of phenomenal prosperity for the industry, but I believe that we may expect conditions will depend largely upon the activity and success of the wildcatters. There is nothing in sight now that would indicate a large over production, but we can not look for real prosperity in the industry until production has fallen below consumption to such an extent that the enormous stocks of crude oil now above ground shall have been considerably reduced.

"The prosperity of the refining branch will depend upon whether the refiners produce gasoline largely in excess of requirements as they have done at times in the past. There should be closer co-operation between the independent refiner and independent jobber. In the past two years the jobber has profited at the expense of the refiner, but this resulted from an oversupply of gasoline which probably will not exist this year.

Unless there are discoveries of new fields of large proportions, it is not

Expressions from Representative Executives Give Insight On What May Be Expected for Industry During 1925

likely that the refiners will be able to buy distress crude at a price away below the posted price resulting in the chaos that has prevailed during some periods of the past two years. On the whole, I am optimistic as to conditions for the present year, but a reasonably conservative policy must be followed by all branches of the industry."

A. C. Bedford, Chairman Board of Directors, Standard Oil Company of New Jersey:

"In reply to your request for my opinion of business prospects for 1925, would say that from the accomplishments of 1924, I feel we are justified in looking forward both at home and abroad to a better and closer understanding that will make for progress in civilization and better business relations throughout the world. This should be reflected in the oil business in an increase in volume of sales and of the prosperity of the industry generally."

M. M. Doan, Vice President Phillips Petroleum Company, Tulsa:

"From the present outlook, there now seems to be very little doubt as to the current year being a profitable one for the industry. I don't think that production will exceed the total of last year and with consumption conservatively estimated at 10 per cent above the consumption of 1924, the result must be inevitably good. The estimate of increased consumption is based upon the increase of 1924 over 1923 and the fact that the farmers in all parts of the country have made large profits from their 1924 crops and it now appears that this performance will be repeated in 1925. We cannot expect production to balance consumption at all times during the coming year, but as long as production does not increase to ten per cent above the consuming powers of our nation, we are insured of a stable industry. It is a far better happening for the production to be ten per cent too high than it is for the operators to formulate plans for extensive drilling campaigns which might ultimately result in production reaching a point too high for the good of the industry."

T. A. Dines, President Midwest Refining Company, Denver, Colo.:

"Nineteen twenty five promises better conditions for the oil industry in every branch provided the optimists do not get busy too soon. There is nothing on the horizon in the Rocky Mountain region which might keep back our share in the general prosperity."

R. D. Benson, chairman of board, Tidewater Oil Company, New York, N. Y.:

"Before sailing for Europe this last week, Mr. Benson expressed the belief that the outlook for 1925 is much better than it was in 1924 at this time.

"It is doubtful if the oil business will be so very good for the first three or four months and the price of crude oil should remain about the same as now," he said. "But after that it should advance and the oil business ought then to be very good." He stated that a great deal depended on the potential output of the Wortham pool in Texas.

E. J. Sullivan, Preisdent E. T. Williams Oil Company, Casper, Wyoming:

"The outlook for the oil industry for the present year is fortunately much better than the experience of the industry in the past two years. I believe oil operators are beginning to understand the necessity for economic operation. It would be unfortunate if the government would feel warranted on interfering. Oil operators cannot overlook the significance of the move on the part of the government in appointing the conservation body. Governmental interference has never been nor can ever be helpful to any industry, notwithstanding the papers favoring that subject recently submitted by near leaders of the industry at the Ft. Worth meeting. We are beyond the period of low prices and I believe the Wortham field is an excuse and not a reason for the continued low prices. Students of the industry must take notice of the fact that stocks are being drawn on, although reports from some sources indicate the contrary. We should all feel encouraged at the present prospect."

L. L. Marcell, President White Eagle Oil & Refining Company, Kansas City:

"It is my opinion that consumption during 1925 is going to exceed production by quite a large margin, therefore look for considerable higher prices on crude oil and its products. The increased consumption is caused by improved business conditions not only in the United States, but in foreign countries."

H. F. Wilcox, President H. F. Wilcox Oil & Gas Company, Tulsa:

"Unless there are several new major pools discovered, such as the Wortham pool, I look for advancing prices for crude oil and its products during the year 1925."

E. H. Moore, President Independent Oil and Gas Company, Okmulgee, Oklahoma:

"So far as anything in sight now is concerned, I can see no reason why the oil industry may not share in the prosperity which other industries seem certain to enjoy this year. It is apparent that we will have a healthy increase in consumption and unless we should suddenly discover some big pools such as we have had in the last two years, we are certain of a better market and assured of a profitable year."

Earl W. Sinclair, President Sinclair Consolidated Oil Corporation, New York:

"In my opinion the fundamental conditions in the industry are better than for several years, but real prosperity for this year depends to a large degree on the consumption exceeding the production."

W. L. Stewart, President Union Oil Company of California, Los Angeles:

"My opinion on outlook for the petroleum industry for 1925: With business generally improving in all parts of the world, outlook for the industry, in my opinion, is good."

W. A. J. M. Van Waterschoot van der Gracht, President Marland Oil Company of Texas, Dallas:

"While I am able to visualize no concrete incident which points to a phenomenally prosperous year for the industry, I do believe existing conditions point to a better year for all branches.

"In the matter of export, the foreign market now is in more of a position to receive a larger amount of oil from the United States than it was at the beginning of 1924. Ravages of war felt so keenly by Continental Europe are fast becoming nullified by a general economic reconstruction that has gripped the nations, accelerating them in their march toward stability of government and business. With the economic status of Europe fast becoming sound, it is reasonable to expect imports of oil, both refined and crude, from the United States will increase proportional to the demand.

J. C. Donnell, President Ohio Oil Company, Findlay, Ohio:

"If the producers would conserve their operations, it would do more to stabilize the business and the whole industry would be benefited by doing so. The refiners should conserve and not run to full capacity and overstock the market."

Teapot Investigation Report Due January 19

No other legislative action bearing on oil to come before present congressional session

By Clarence L. Linz
Staff Representative

Washington, D. C., Jan. 12.—With the exception of Teapot Dome, which is due for an eruption in the Senate on January 19, there is no petroleum legislation to be taken up by the present Congress, which comes to an end on March 4. There are, of course, a number of bills dealing with oil which have been introduced during the Congress, but none of these will be given any consideration during the remainder of the present session and they, too, will pass into oblivion with the 68th Congress.

Teapot Dome, the lid of which was carefully lifted by the Senate investigating committee last year with a great deal of verbal pyrotechnics which, it was hoped by some, would result in a democratic landslide last November, after lying quiescent all summer has this last month been simmering and showing signs of awakening activity. It is particularly a sore spot with Senator Bruce (Dem.) of Maryland, who on more than one occasion on the floor of the Senate has bewailed the fact that the democratic investigators of the "Great Republican Scandal" failed to make the most of their opportunities to show the administration up as an oil-bedewed, graft-dividing clique.

His discussion of the matter within the past month has more than once elicited tart responses from Senator Walsh of Montana, the guiding spirit of the investigation, which culminated on January 5 in the announcement by the Montana member that on January 19 he would bring up his resolution to adopt the report of the investigating committee. He denied vigorously that there was anything of a political nature in the investigation, and a spirited debate ensued which gradually degenerated into an ordinary party row.

Minority Report

By the time the oil investigation is again before the Senate it is expected that Senator Spencer of Missouri, a republican member of the investigating committee, will have a report ready for submission. This will be somewhat in the nature of a minority report and, while there will be no attempt made to condone any breaches of trust by government officials, the tenor of the verdict will probably be less harsh and more judicial than the majority report.

Adoption of the report, however, will probably now have little effect upon the matter. Revocation of the leases is being sought in the federal courts, and should the government's attempt to vacate them be successful, it would merely throw the reserves back into the hands of the President, as before the leases were made. These lands are subject to executive order, by an act of Congress, and while legislation might be sought bringing their control under Congress, such action is very doubtful. It is probable that the lands, once returned to the Government, will be maintained as a reserve, with offset wells drilled where necessary, the oil either going to the navy or to private interests on a royalty basis.

Whether the next Congress, which will convene for its regular session in December of this year, will be called upon to enact petroleum legislation depends entirely upon the findings of the federal conservation board, appointed last month by President Coolidge, which is working in co-operation with the President's commission to investigate the future oil supply of the navy. The conservation board, consisting of the Secretaries of War, Navy, Interior and Commerce, has just organized and in the near future will begin public hearings at which representatives of the oil industry will be invited to make known their views upon the situation and offer suggestions for carrying out the program suggested by the President, which is chiefly concerned with elimination of waste and other methods of conservation.

Conservation Committee

Just what the commission can accomplish remains to be seen. Its members confess that they do not know where to begin, and for that reason will seek the advice of the industry immediately. The situation, however, is this: The United Staates produces more than 60 per cent of the world's oil, but the country is using more than it produces, necessitating imports and subjecting the industry to the fluctuations and fears which necessarily follow the recurrent reports that production in Mexico is falling off. During the year 1923 we produced 732,407,000 barrels, imported 82,000,000 barrels, exported 17,385,000 barrels and consumed 714,316,000 barrels. Crude in storage at the end of the year amounted to 334,774,000 barrels, or 157 days' supply. The increase in storage stocks during the year was about 76,500,000 barrels, or something less than the imports.

Yet despite the fact that domestic consumption is not sufficient for domestic needs and exports, the oil industry for several years has been in a chaotic state due to over-production. Intensive competition, in place of remedying the situation, has created a mad rush to get the oil out of the ground and to market; this, it is declared, has resulted in enormous waste, and the reduction of that waste is one of the things which the President's board is to consider.

The two possible remedies suggested so far are (1) close co-operation on the part of the industry for the prevention of waste and (2) the refusal by the government of further oil leases on public lands. The problems of the board, in general, are those which will be solved without legislation, yet it is possible that an intensive survey of the situation may show the need of legislation to supplement the leasing act of 1920.

Leaving Oil Alone

Following the Teapot Dome investigation of last session, there seems to be a general inclination on the part of Congress to leave the oil industry alone for a while. So far this session, with the exception of recriminations among democratic members over the political fiasco of the investigation, nothing has been said about oil. The public lands committee of the House has no legislation pertaining to oil pending before it; the same situation exists in the public lands committee of the Senate. If any members have oil bills which they would like to pass, they realize that, with less than 50 legislative days left to this Congress, there is no chance of getting anything through. If they will be members of the next Congress, they will save their measures until next December, when they will have two years in which to pass them. That bills dealing with this subject will be introduced in the next Congress is a foregone conclusion—each Congress brings in a flock of several thousand measures, sensible and otherwise, dealing with everything under the sun. There will be many new members, and new members often have "pet" measures which they have promised their constituents they will enact into law—a promise more often unfulfilled than carried out.

Reverting to the naval reserves, in connection with next session's possibilities, it is considered possible in some quarters that the President may seek the guidance of Congress in planning for the future of these lands if the present leases are canceled. It is pointed out that there has been such severe criticism of the leases made by former Secretary of the Interior Fall that President Coolidge may "pass the buck" to Congress when the lands fall back on his hands and ask that omniscient body to formulate a policy which can be carried out by the administration, which will assure to the nation an adequate supply of oil for national defense, when needed, and in the form needed, while at the same time protecting the reserves from depletion through wells drilled on private lands outside the boundaries.

What Figures on Oil Production Show

More wells drilled and exploring done, but year is 14,593,000 behind 1923

By A. R. McTee
Staff Representative

NOTWITHSTANDING the fact that 1924 was a busy year in most oil fields, as shown by drilling statistics, the total yield of crude oil in the United States fell below that of 1923 by 14,593,800 barrels. The decrease was distributed over practically all the oil producing territory, with every state showing declines except Oklahoma, Texas and Arkansas. And these states, in spite of the fact that they are among the most important producers of oil, did not increase their production sufficiently to offset declines in other territory. Against a total of 725,057,305 barrels for 1923, is this year's output which reached 710,463,430 barrels.

Wildcatting, though perhaps as extensive as during last year, failed to bring to light any pool of consequence when compared with prospecting efforts in 1923. The only discoveries recorded which actually open up new oil territory, were in Kansas and Colorado. Other wells extended already proven areas, to be sure, and these pools contributed considerable flush production in many instances, for example, the extensions in Archer County, Texas. The Wortham field, in Texas, might be called a wildcat field, but it is only a short distance on the north to Powell, and Mexia is quite near on the south. Drilling has been going on in the vicinity of Wortham for the past two or three years, and the present field might well be considered the fulfillment of a geological assumption made three years ago.

Storage and Price

A noted authority on petroleum economics has said that there is no direct relationship between the price of crude petroleum and production inasmuch as the quantity of stocks in storage is a factor that has to be reckoned with. The past year has proved the soundness of this statement. It was only toward the close of the year that there was any decrease in stocks. The price of crude began to drop early in the year and remained down throughout the most of the twelve month period, and is still below normal. Production, though showing a distinct downward tendency through November and December, held up much better throughout the summer than had been predicted. In fact it was through strenuous efforts on the part of producers that a greater market catastrophe than was witnessed in 1923 was avoided during the past summer.

Proration was resorted to in efforts to lower the crude oil output and drilling was likewise checked in nearly every field in the hopes of bolstering up the market. With these precautions and the good luck in that no bonanza field was discovered, the demoralization was not as keenly felt as last year. Throughout the greater part of the year it might be said that crude oil prices were determined largely by stocks, rather than the amount of oil brought to the top of the ground. That drilling was not checked to any extent by the low prices paid for crude is shown by the fact that there were 1200 more wells completed during 1924 than in 1923; and in the final analysis there was very little difference between the two years from the standpoint of crude prices, at least.

California Drilling

It is a singular coincidence that California, the state showing the biggest increase in drilling as compared with last year shows up with the heaviest decrease in production. During the twelve months, 531 more wells were completed than were reported in 1923, but the total output of crude oil dropped from 258,387,119 barrels to 230,366,303 barrels.

The only explanation for this lies in the fact that most of the wells were in old fields and were drilled on inside locations, resulting in comparatively low initial production. At the close of last year, the total amount of oil territory in California was 4725 acres. During 1924 this was not extended or increased materially. Rosecrans was the only new field, and that district has fallen far short of expectations up to this time. Initial production was off 843,900 barrels for 1924.

The three big California fields, Santa Fe Springs, Long Beach and Huntington Beach, which threw the oil world into confusion last summer a year ago, have declined steadily since early in 1924, and much of the storage built then in anticipation of other big production will never be filled. At the beginning of 1924, storage space for about 37,000,000 barrels of crude was available, but was not all used during the year, and there is little probability of its being used in 1925.

Texas More Profitable

As if to offset the situation in California, Texas field statistics showed 395 less completions during 1924 than in 1923, but Texas yielded 7,622,200 barrels more crude during the past year than in 1923. The most of this increase was accounted for, however, by two districts that were among producing fields in 1923. Luling, due to the Caldwell County extension, produced 10,000,000 barrels of oil against less than 1,000,000 barrels last year, and Archer County doubled its output, from extensions to old pools. These two fields added 16,000 barrels more oil to the Texas total during 1923, but this was cut in half by heavy declines from other old fields. Wortham flush production was thrown on the market too late in the year to show up in totals for 1924.

Reagan County, in West Texas, showed a material increase in both the number of wells drilled and the amount of oil produced as compared to 1923, but transportation facilities have held up development of the Reagan County acreage until a minimum of work is being done. One or two good wells were brought in only to be pinched down immediately, and when the field gets a pipe line it will undoubtedly become a determining factor in the Texas situation.

Oklahoma's Increase

Although giving very little promise of such a record at the beginning of 1924, Oklahoma closed the year with the greatest single increase of any other state. The difference in completions for the two years was 32, favoring 1924, but the increase in producers was greater than anywhere else. Initial production was up more than 248,300 barrels, and the total increased output was above 14,600,000 barrels.

Cromwell, Stroud, and deep sands at Tonkawa were the main contributors and none of these fields were new. Stroud in Lincoln County was looked upon as an important area throughout the summer, but interest in that section subsided within a short time and the field is not now looked upon as having great potentialities. Cromwell, in Seminole County, held the attention of operators more or less spasmodically throughout the year, but it was left for Tonkawa to contribute the most of the increase.

The discovery of a new pool in Russell County, Kansas, marked the big achievement of that state for 1924. The pool is about 125 miles from the nearest field and is looked upon as one of the most promising districts in Kansas. Completions for the entire state were less than in 1923, by 95, and the total output of all fields was below that of 1923 by 2,200,500 barrels.

Due to intensive drilling on inside locations at Smackover, total production of Arkansas increased 2,000,000 barrels in 1924. During the middle of the summer work was at a standstill in all Arkansas fields, but the demand for Smackover crude increased toward the fall and much drilling was done. No new fields were found and wilcatting failed to discover any encouraging prospective oil territory. Field statistics fell below those of 1923.

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tivity in Louisiana during the year and many completions were added to the field. In spite of a few good wells, however, the year's development has not left much definite information about the field and it is still as much of a bet as when the discovery well was completed. Water trouble has left the field pretty much of a graveyard and it is a matter of conjecture as to what will be the final outcome of all the work done there.

In the early fall a considerable stir was caused by a producer in wildcat territory near Lockport. It is generally conceded as a fact that the well means the discovery of another salt dome field. Although no indications of a dome were found in drilling, the oil is of the same grade as that from other salt dome fields. Other tests are in progress but no other producer has been completed yet.

Drilling in Louisiana failed to hold completions to the figures for 1923, and production was off 2,000,000 barrels. Gradual declines were shown in all the old fields.

Throughout the group of states in the central part of the country, and east of the Mississippi River, more drilling was done during the past year than in 1923. The demand for crude from these states held up for the greater part of the year and in view of the natural decline of these fields which is continuously increasing, drilling was pushed forward. The output from individual wells is always small in these states, and a big percentage of the completions comprises gas wells. This cuts down initial production and likewise fails to maintain the daily average in the old pools.

Mountain states consisting of Wyoming, Montana and Colorado, in general underwent a busy year. Especially in Colorado was there much wildcatting. Late in 1923, a big gas well on Wellington Dome, threw the state into feverish activity and prospecting was renewed in several sections. Acreage was blocked and Colorado was the scene of what might be called a boom. A little later a producer was brought in in the northwestern part of the state and developed into an exceptionally good well. The Wellington Dome gasser finally went to oil and is still producing.

Out of all the wildcat tests nothing of importance has developed, save the two localities mentioned, and these are not known to have great potentialities. On the whole, wildcatting has not accomplished a great deal, as was predicted by men who know Colorado, at the beginning of last year.

Montana and Wyoming show much drilling, but the natural slump in the old fields has not been halted and production for those two states was below that of 1923 by nearly 6,000,000 barrels.

To predict anything about the oil output during the coming year is futile. Facts show that 1923 and 1924 were practically a repetition of each other from both the production and market standpoint.

What Do Wildcats Hold In Store This Year?

No one knows but a survey of exploration prospects would indicate extensive testing

IT might be said that wildcatting for oil is entering upon a new era in 1925.

With most of the territory adjacent to present production fairly well tested as to potentialities, much of the exploration for new fields will take place in areas where previous exploration has been limited.

The situation is such that this exploration will be extensive and widespread, and in most instances the work will be of that nature as to attract only those concerns whose finances permit of heavy investments in the gamble for new wells. Development will be extended to remote places where the expense of drilling will be great because of transportation obstacles, and often in districts where the geological data calls for deep holes.

No longer, it appears, is it to be a game to be played by the adventurous individual who can inveigle a few hundred dollars into a venture that will be periodically "closed down for funds," but the future wildcat will be drilled after careful scientific investigation by interests with funds to see the project through.

The following digests of pending explorations in unproven areas have been prepared after careful investigation by staff representatives and men of recognized authority who are familiar with the several districts treated. In presenting same, it is believed that a very comprehensive account has been given of what will be done during the present year to replace the production of declining fields.

Will Have to Meet Refining Capacity

By A. J. Hazlett
Editor of the Inland Oil Index

At the threshold of 1925, the petroleum industry in the Rocky Mountain region finds itself in a pecular situation. With an aggregate refining capacity of approximately 125,000 barrels daily and a maximum daily production of approximately 75,000 barrels, the major interests must either find more production or shut down some of the refineries. This leads everybody that has been watching developments closely in this territory to believe that an intensive drilling campaign will be inaugurated in the states comprising the Rocky Mountain region.

With so many ideal structures untested and productive sands underlying old fields not yet developed, it is idle to speculate on the junking of any of the refineries. This is the principal reason why it can be positively stated that the year 1925 will witness one of the greatest wildcat drilling campaigns ever known in the western states.

May Drill 500 Tests

While the year 1924 was noted more for development and expansion in all branches of the oil and gas industry, the year 1925 will be particularly noted for its exploration work. A conservative estimate of the number of wildcat tests that will be drilled during the present year would not fall short of 500. As many of these tests will be drilled remote from railhead, they will be very expensive and cost from $25,000 to as high as $250,000 each. Striking a low average, it is probably safe to estimate the cost at $50,000 per well, which would bring the total up to $2,500,000. While there were a number of very deep tests drilled in 1924, it is altogether probable that the present year will be characterized by the depths to which many wildcat tests will be carried.

As in the past, Wyoming will lead in wildcat development. Some of the most prominent prospects in this state are now getting at interesting depths. More than 50 structures are now being tested in Wyoming alone. Roughly stated, Wyoming may be divided into five general districts, Northern Wyoming, Northeastern Wyoming, central Wyoming and Southwestern Wyoming.

The accompanying discussion on wildcat possibilities in the Mountain States district has been written by A. J. Hazlett, editor of the Inland Oil Index who is probably more familiar with field work in that section than any other writer. Mr. Hazlett's observations form a very valuable contribution to this survey and many will be pleased to again read after "old Silver Top" as he is known wherever oil is produced. The Editor.

Northern Wyoming

One of the most active of the companies in Northern Wyoming is the Union Oil Company of California. The company is also introducing an innovation in the state in its hunt for black oil structures. Heretofore the majority of the companies operating in the Rocky Mountain territory have devoted their attention principally to light oil structures. Discovery of black oil has been more of an accident than an organized effort. Union of California is drilling on three tests in Northern Wyoming; section 34-43-91, Lake Creek; section 3-42-93, Hale Dome and section 31-56-96, Byron Dome. Its test at Byron recently ran into a good showing of gas and light oil in the Torchlight sand at about 2770 feet. Hole filled up with oil and flowed over the top of the derrick, but after standing 24 hours bailed dry. It is now being drilled deeper with the Greybull sand, which correlates with the Dakota series, as the next objective. This formation should be found at about 3800 feet.

Alkali Dome is being prospected by the Westland Oil Company with a rig up on section 33-55-95 and the test already on section 10-54-95. This structure has had several tests drilled before, but in the light of recent geological data, it is considered that they were not drilled deep enough.

Black Mountain structure has already been proved for oil by the Utah Oil Refining Company, with the completion early last year at 3100 feet of a well with a capacity of about 300 barrels daily. It is now drilling on section 35-43-91 and on section 31-43-90. This structure should take its place as one of the producing oil fields in 1925.

Buffalo Basin is being prospected by the Midwest Refining Company with tests on section 1-47-100 and section 31-48-99. The last named is drilling with a rotary rig. Very heavy gas production has been found in the higher strata at Buffalo Basin and an attempt is now being made with rotary to mud off sand in order to reach lower horizons in the hope of finding oil production.

Shoshone Anticline has two tests drilling. Cody Oil & Gas Company section 21-53-101, reports about 1000 feet of oil in the hole with a total depth of 1415 feet. Test is being tubed and will be tried out on the beam. If it fails to make a commercial producer, it will be drilled deeper. Washington Oil Company, is underreaming at 920 feet on section 20-53-101.

Producers & Refiners Corporation

has been quite active in Northern Wyoming. It recently completed a 500,000,000 foot gas well at Enos Creek, on section 26-46-100, at 2850 feet. An effort will be made to further test this structure for oil. Same company is drilling on Murphy Dome, section 8-43-91.

Among some of the other more prominent tests in Northern Wyoming are the following:

Bonanza structure, being drilled by Schaffer & Tilley; Cody structure, by 56 Petroleum Company; Frannie structure, by Watson & McCormack; Hidden Dome, by Ohio Oil Company; Golden Eagle by Midwest Refining Company; Sand Draw by E. A. MacPherson; Pitchfork by C. C. Landes et al; Torchlight by Bruce Holding Company, and Zimmerman Butte by E. A. MacPherson.

Eastern Wyoming

Most of the wildcat activity in eastern Wyoming in the past year has centered around the producing fields of Mule Creek, Osage and Lance Creek. More than a dozen tests are now underway in this territory. The one that is attracting perhaps most attention is being drilled by the Gose Syndicate near Upton in Weston County. The structure is known as Soda Creek Dome and the location is in section 28-47-65. It recently set a string of 4¼ inch casing at 4250 feet and is believed to be close to the Muddy sand. It is said to have a showing of green oil in the bottom of the hole.

Another section that will be given a thorough test is the old shallow oil field near Moorcroft in Crook County. This structure is known locally as Butte Dome. It was taken over some time ago by the J. A. Duthie interests of Seattle and they are now engaged in drilling a number of validating holes with a rig up for a deep test on section 34-52-67. For many years shallow wells in this district have been furnishing a natural lubricant which has been sold locally for railway lubrication and other purposes.

In the Fiddler Creek district, Frederick Oil & Gas Company has a test standing at 3100 feet in section 11-45-64. This test was recently taken over by the O'Brien interests and perhaps may be drilled deeper.

Near Guernsey in Platte County, the Platte River Drilling Association is down 1669 feet and trying to shut off a heavy flow of water. Four attempts have been made to cement the casing without success. Location is in section 12-26-67 and bottom of hole is supposed to be on top of the Sundance sand with a showing of considerable gas and some oil. This same company drilled a test last year on sec. 11-26-67 and had a good showing of oil in the Sundance sand between 1800 and 1860 feet. Hole was lost with a bad fishing job and the second test was located higher up on the structure.

In Goshen County, Foreman Oil Company of Detroit, is drilling two tests. One of these is on the Jay Em structure near Fort Laramie, on sec. 6-28-62. It has reached a total depth of 1200 feet and will set 20-inch casing at that depth. It is expected that this test will not stop short of 5000 feet. Same interests are drilling a test on Rawhide Creek structure north of Lingle, sec. 24-26-62, and it has reached the total depth of 2600 feet. Foreman interests drilled a deep test south of Torrington in 1923 which reached a total depth of 5281 feet. It was abandoned because hot water in the bottom of the hole prevented cement from setting and it was impossible to shut off water.

Some of the other tests that hold possibilities in Eastern Wyoming are that of the Nebraska Oil Company, on sec. 20-29-68 near Glendo, which has an artesian flow of 8000 barrels of fresh water at 900 feet; the Cottonwood Creek structure, near Rozet which is being drilled by Rozet Oil & Gas Company; the Oil Creek structure near Newcastle which is being drilled by George R. Shaw, and the Salt Air Anticline near Newcastle which is being drilled by A. D. Moore.

Central Wyoming

Wildcat work in Central Wyoming promises to be very active in 1925 with several good prospects in view. All efforts to drill through the big gas sands at Billy Creek in Johnson County have met with failure in 1924. This field is controlled by the Consolidated Royalty, Western Exploration and Carter Oil companies which have been conducting joint tests. Several gas wells with open flows of approximately 100,000,000 cubic feet have been completed in this field and it is thought that the lower sands may produce oil. Carter Oil Company recently introduced two rotary rigs and will attempt to mud off gas sand and reach a lower horizon. All work in this district has been shut down for the winter months.

At Walace Creek, about 50 miles north of Casper, Mutual Oil, Consolidated Royalty and Western Exploration companies are conducting a joint operation on sec. 15-34-87. It is shut down for the winter at 1700 feet and is supposed to be on top of a gas sand. This is one of the really important tests of the state as it expects production in the Tertiary, but if not successful is prepared to drill to the Cretaceous formation.

Apparently a new gas field has been found near Arminto by the Wyland Syndicate, which is drilling in sec. 20-37-86. An open flow of 5,000,000 cubic feet of gas was found in the second Wall Creek sand and this has now been bradenheaded and is being used for fuel to drill deeper. Total depth of hole is 2175 feet and believed to be on top of the third Wall Creek sand.

One of the most important wildcat tests in the entire Rocky Mountain region has been under way for the past three years on Boone Dome, about 35 miles northwest of Casper in the Powder River district. It was drilled to about 4800 feet with cable tools and then changed to diamond drill. Total depth is now 4823 feet and it is shut down for the winter. The test is being drilled by the New York Oil Company which supplies Casper with natural gas. The structure has been proved as closed with five gas wells producing from comparatively shallow depths.

Another attempt is being made to prove the Emigrant Gap anticline, 18 miles northwest of Casper. Last year the Bradford-Wyoming Oil Company drilled a well to the Madison lime on sec. 9-34-82 and abandoned hole at 2375 feet. It reported a good showing of light green oil of about 27 gravity in the Amsden. This company is drilling another test on Palmer Dome, Emigrant Gap anticline, sec. 23-43-82, and bit is now working in the Tensleep at 2200 feet. Production is expected in the Amsden at about 2400 feet.

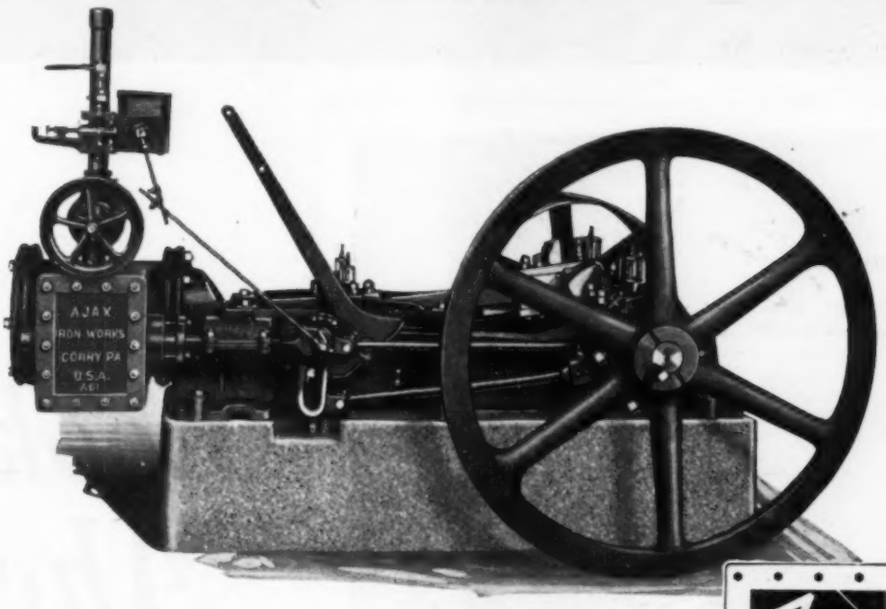
An important test was recently started by the Midwest Refining Company on leases held by the Jupiter Oil Company at the town of Powder River, 50 miles northwest of Casper. Location is in sec. 25-36-85. Test is now shut down for the winter at 800 feet.

Split Hill anticline in the northeastern corner of Niobrara County, is to be tested by the Atlas Oil Company of California. Heavy California rig is now up on patented land in sec. 31-37-67 and contract has been let for a 5000-foot test. Geologists report a Fox Hills escarpment and the well in the Mesa Verde but there seems to be some argument as to whether it is in the Mesa Verde or Tertiary. Should production be found at this location, it will open a vast area for exploration which hitherto has been condemned by resident geologsits. The structure has been worked out carefully by California geologists who spent several months digging trenches and mapping the surrounding country.

People in Casper are building high hopes on the test now being drilled by the Casper Oil & Gas Syndicate on the Carroll Ranch, four miles southeast of Casper. Location is on sec. 23-33-79 and has been shut down for several weeks at 1850 feet and is supposed to be on top of the Second Wall Creek sand. First Wall Creek sand was 55 feet thick and had some gas and a slight showing of oil. It is stated that this structure was located with a "doodlebug."

Early last year, North Casper Creek structure, about 25 miles north of Casper was considered as almost proven for oil as the Midwest Refining Company developed an open flow of about 10,000,000 cubic feet of gas at 1000 feet and deeper drilling showed considerable heavy oil in the Dakota series. Location is on sec. 36-37-82

(Continued on page 87)



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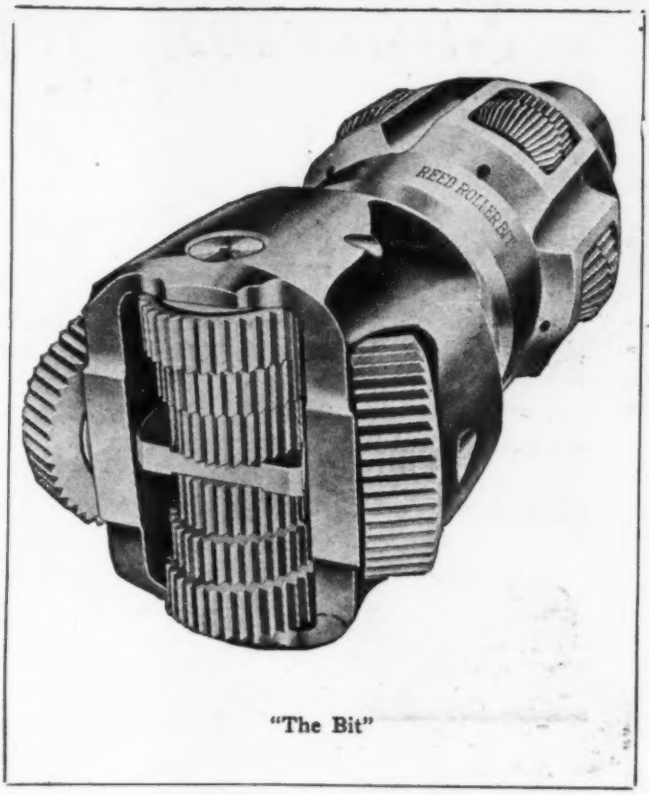

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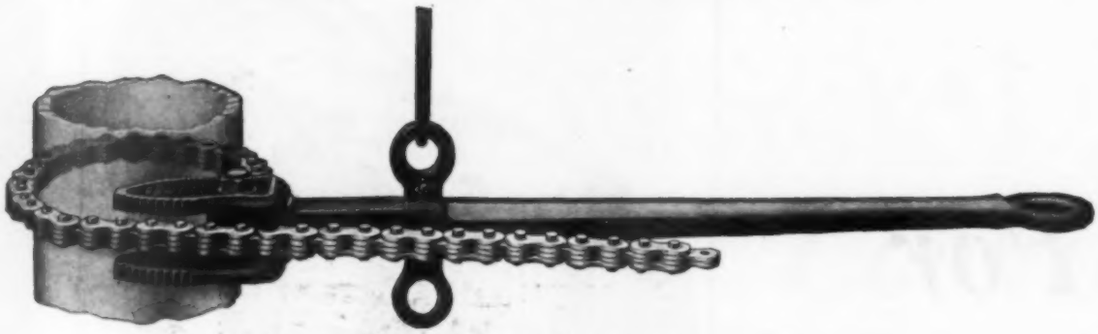

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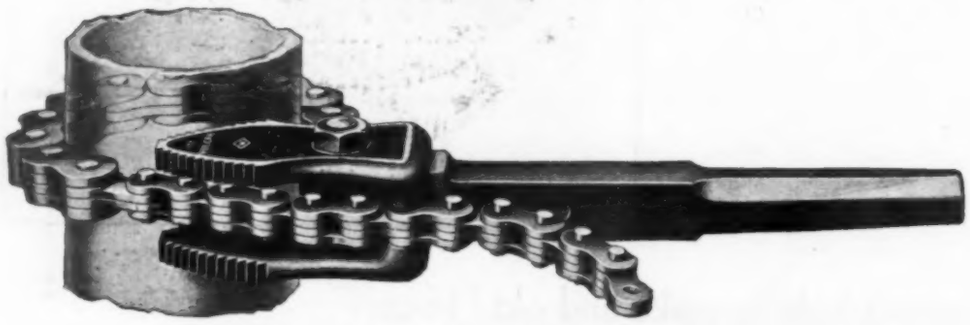

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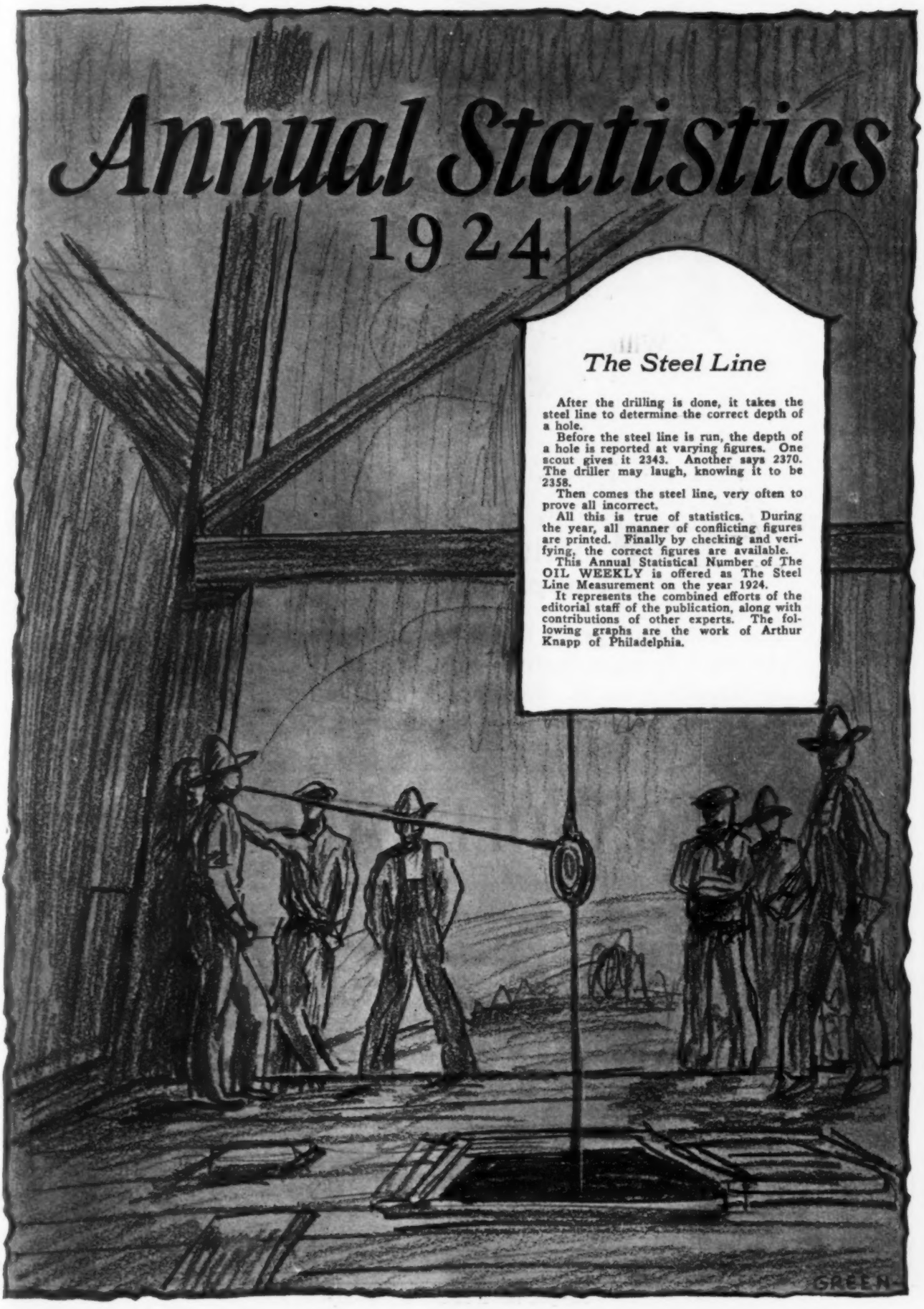
Annual Statistics
1924
The Steel Line
After the drilling is done, it takes the steel line to determine the correct depth of a hole.
Before the steel line is run, the depth of a hole is reported at varying figures. One scout gives it 2343. Another says 2370. The driller may laugh, knowing it to be 2358.
Then comes the steel line, very often to prove all incorrect.
All this is true of statistics. During the year, all manner of conflicting figures are printed. Finally by checking and verifying, the correct figures are available.
This Annual Statistical Number of The OIL WEEKLY is offered as The Steel Line Measurement on the year 1924.
It represents the combined efforts of the editorial staff of the publication, along with contributions of other experts. The following graphs are the work of Arthur Knapp of Philadelphia.
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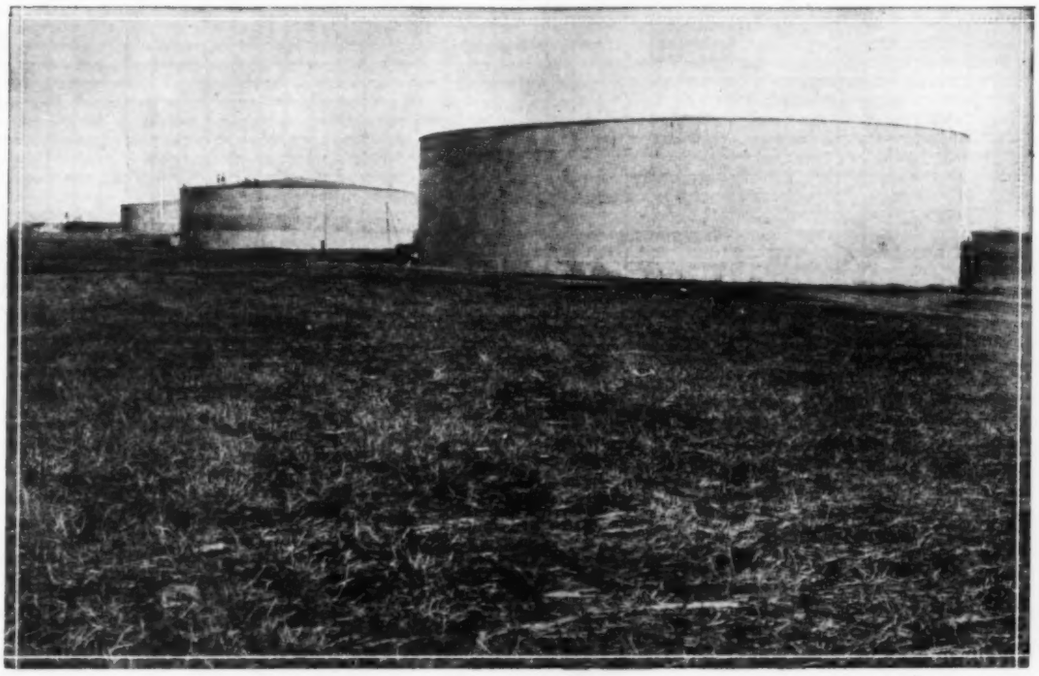

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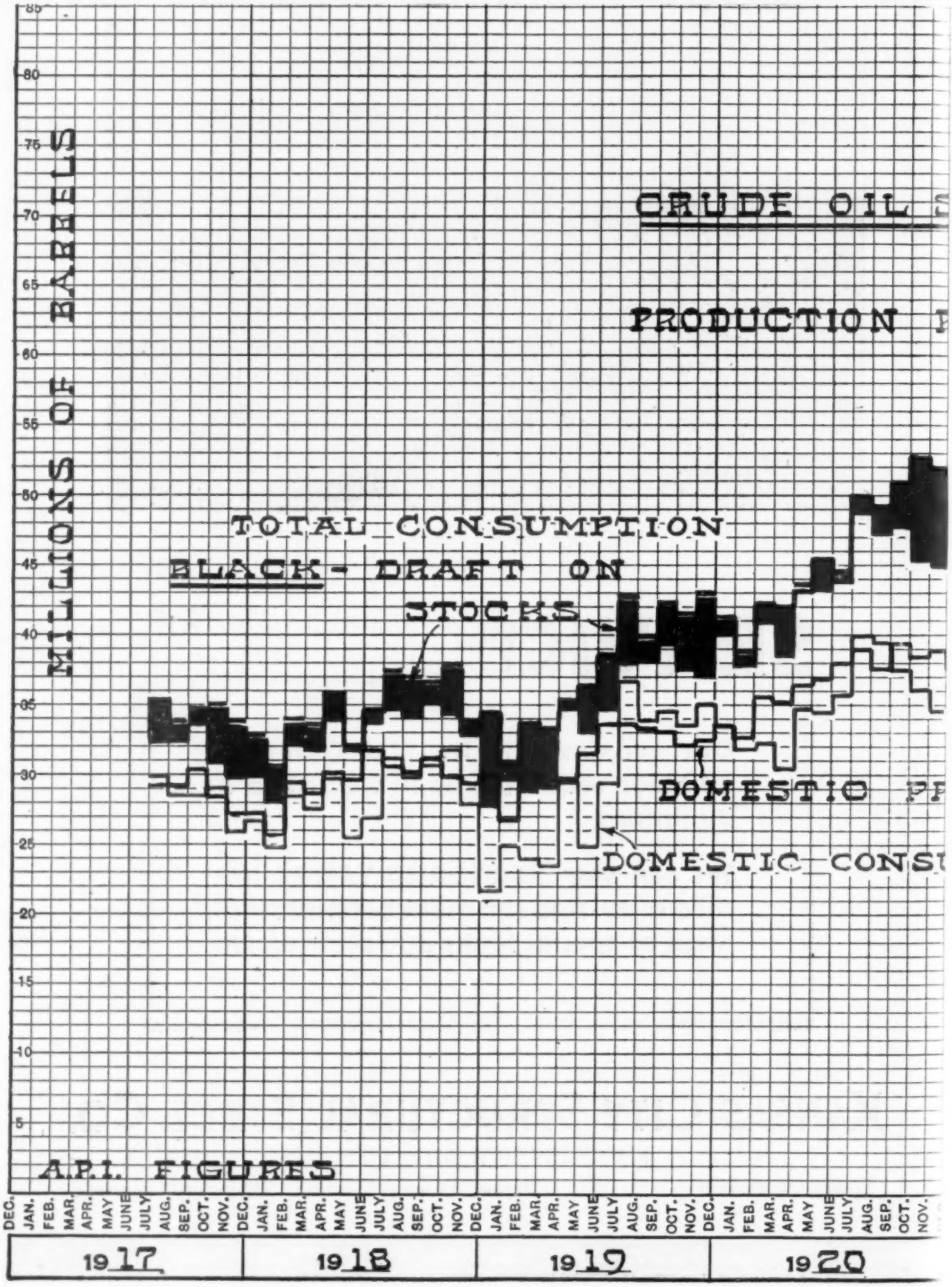
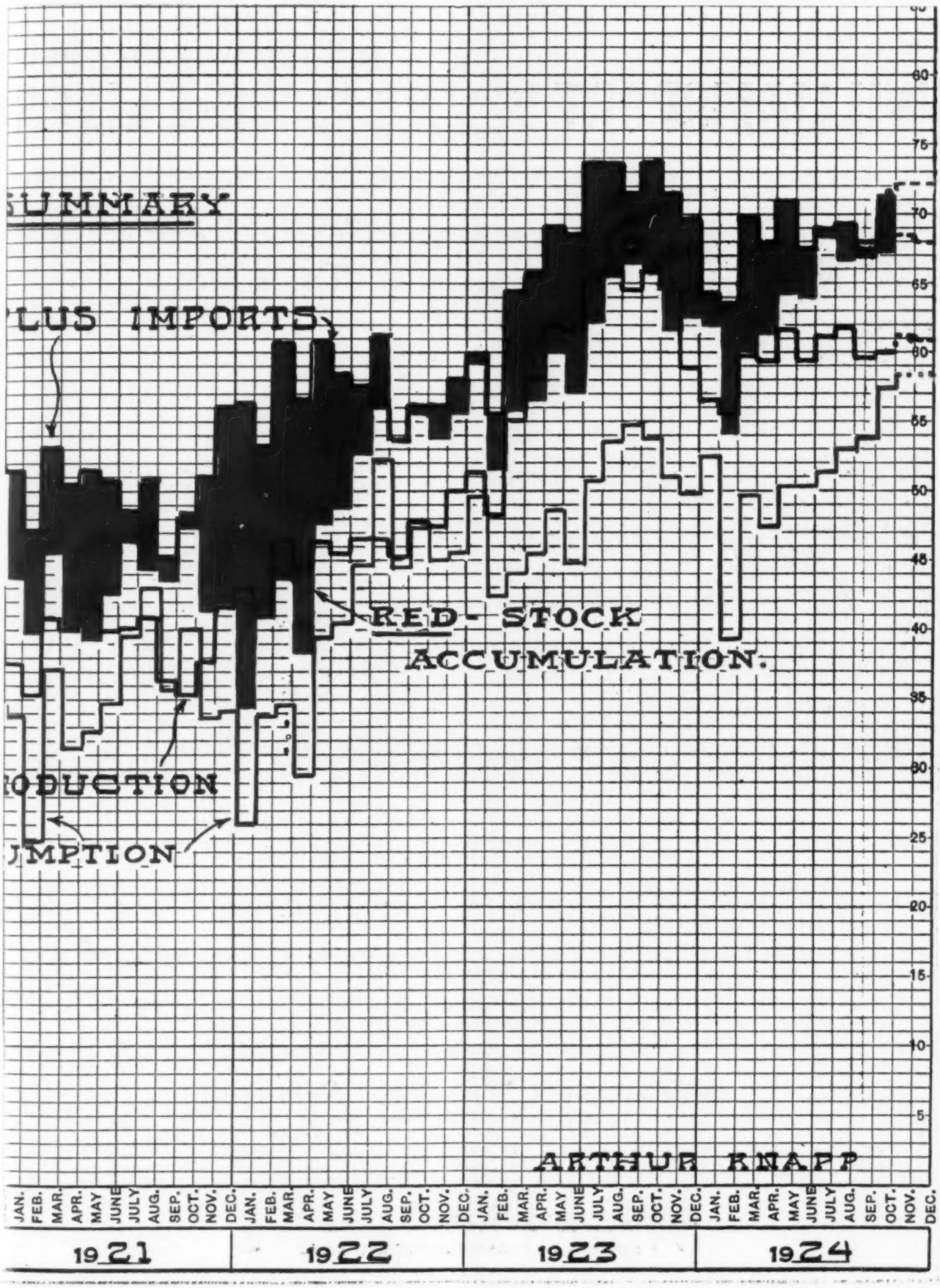
Say you saw it in The Oil Weekly

Summary of Crude Petroleum from 1917 to 1925



Summary of Crude Petroleum from 1917 to 1925



Let these men

L. V. Farmer, Warehouse Foreman; Jas. Finch, Production Foreman; Frank Woodbeck, Field Superintendent of the Marine Oil Company, Salt Creek, Wyoming

tell you why they like

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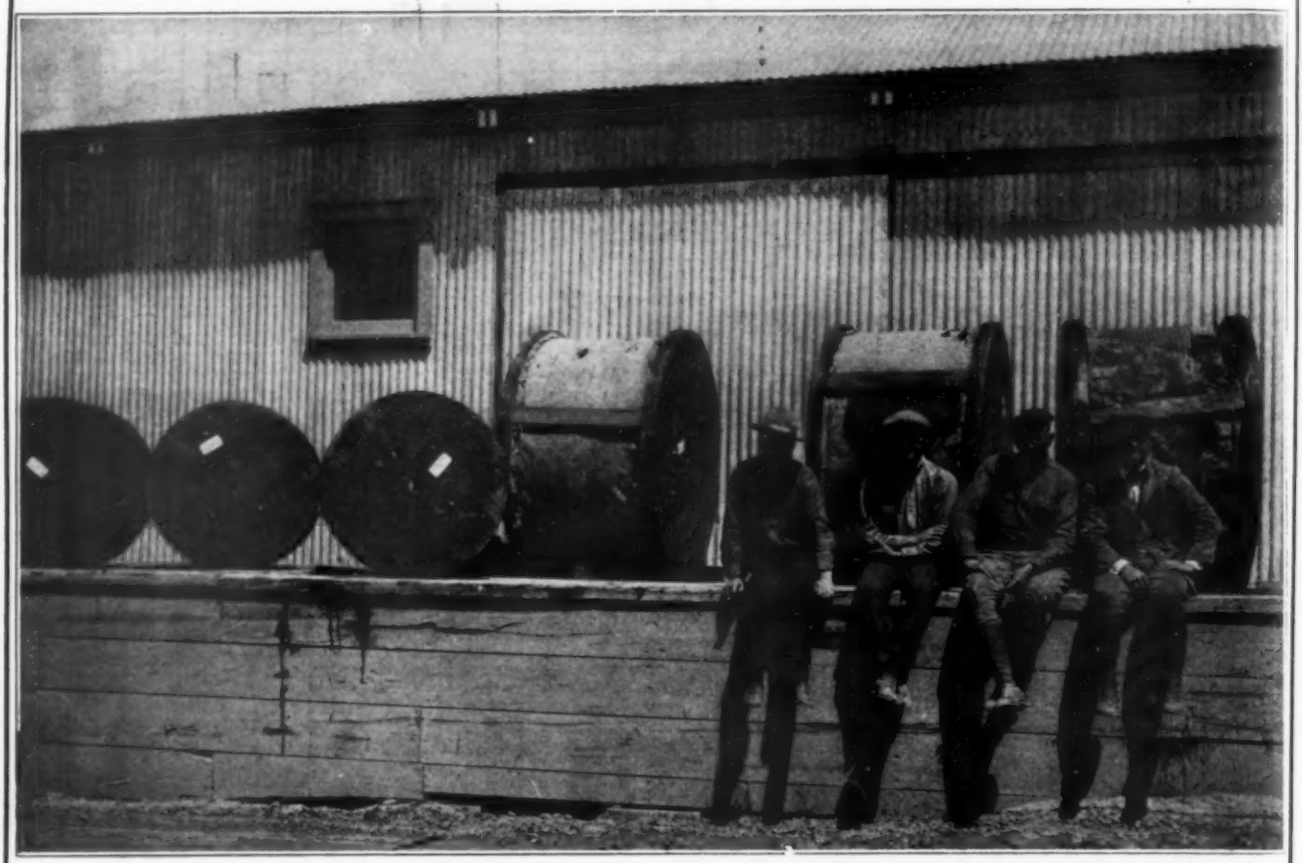

Marine Oil Company's warehouse and platform—Williamsport Wire Lines used exclusively. Left to right: L. V. Farmer, warehouse foreman; Jas. Finch, production foreman; Frank Woodbeck, field superintendent; F. H. Smith, salesman.

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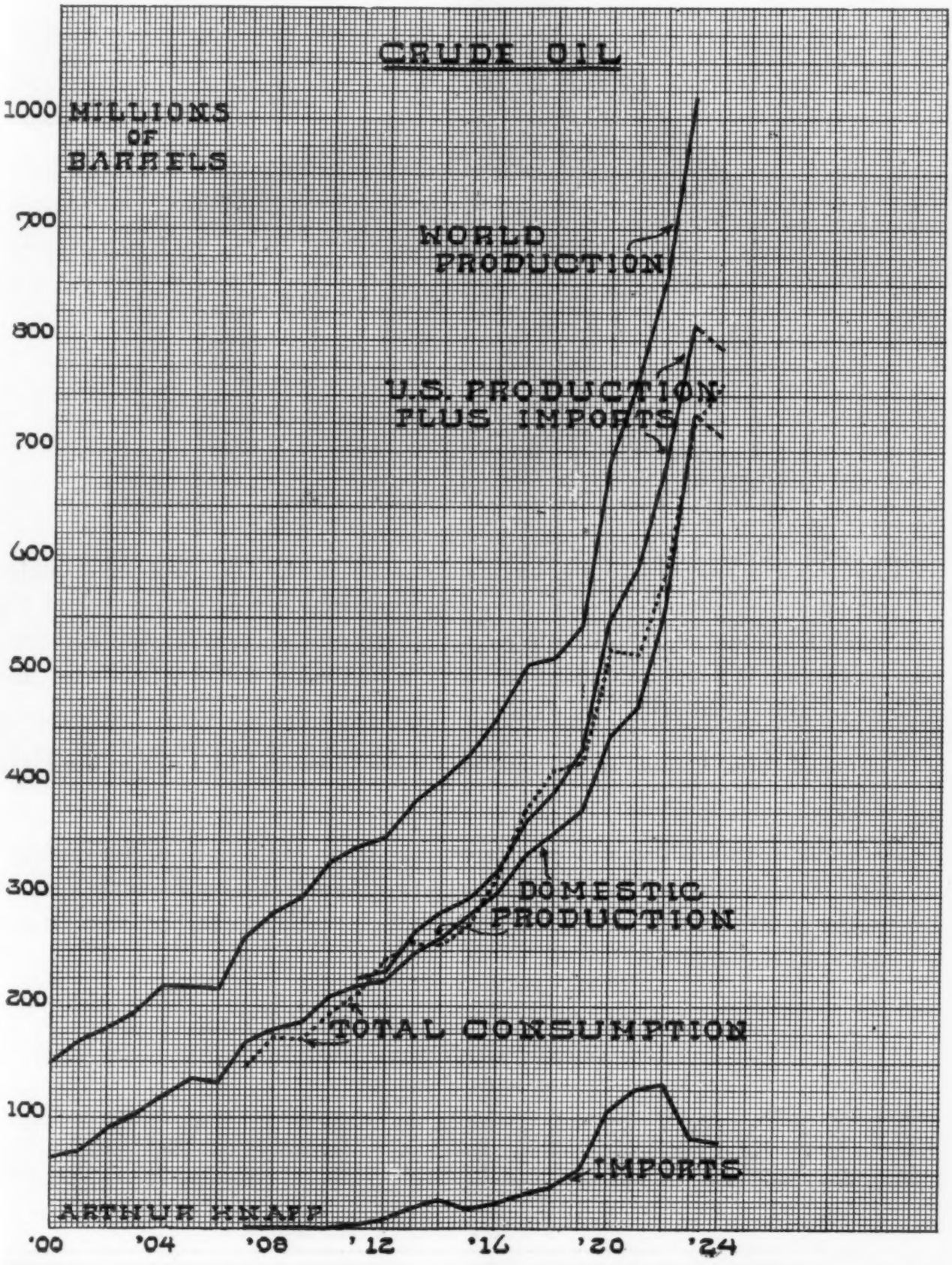

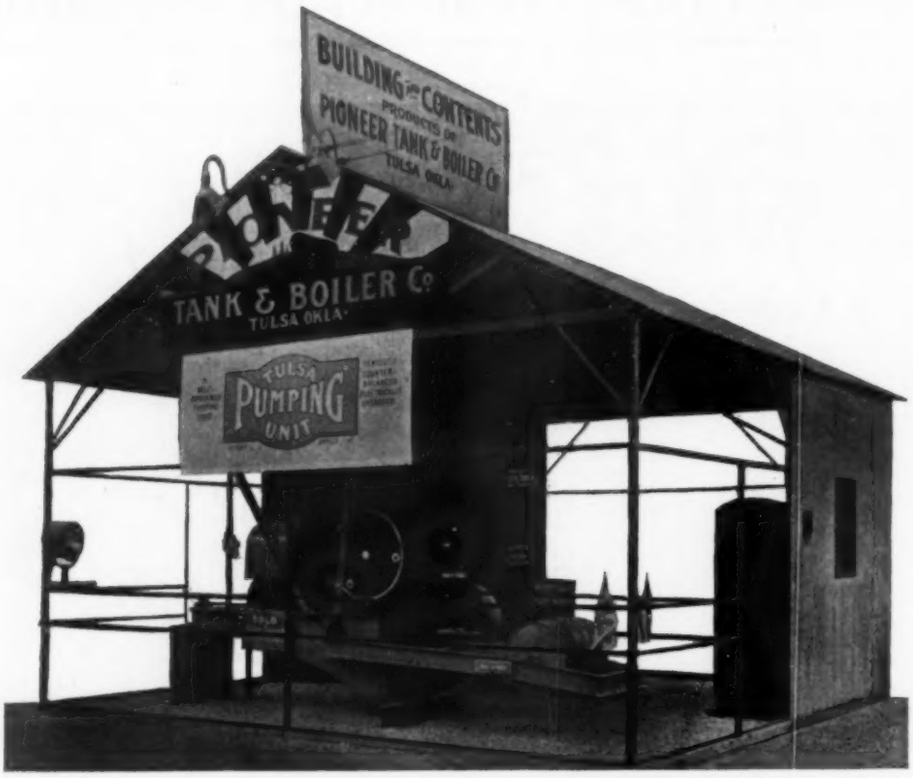

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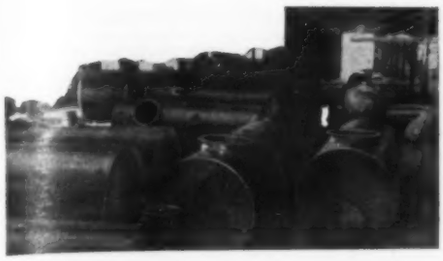

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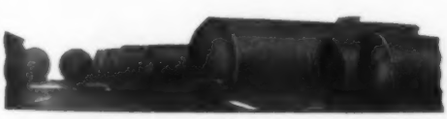

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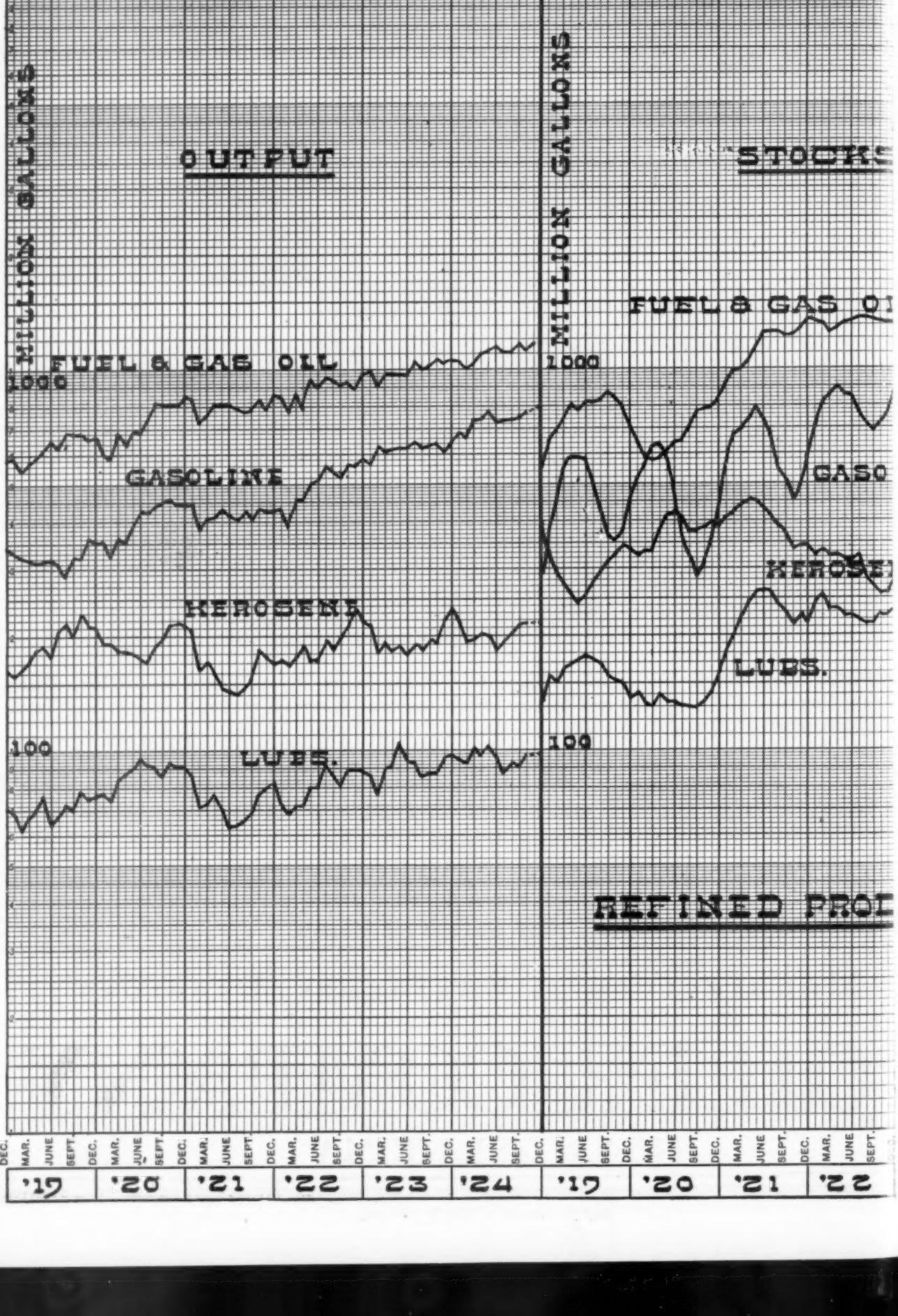
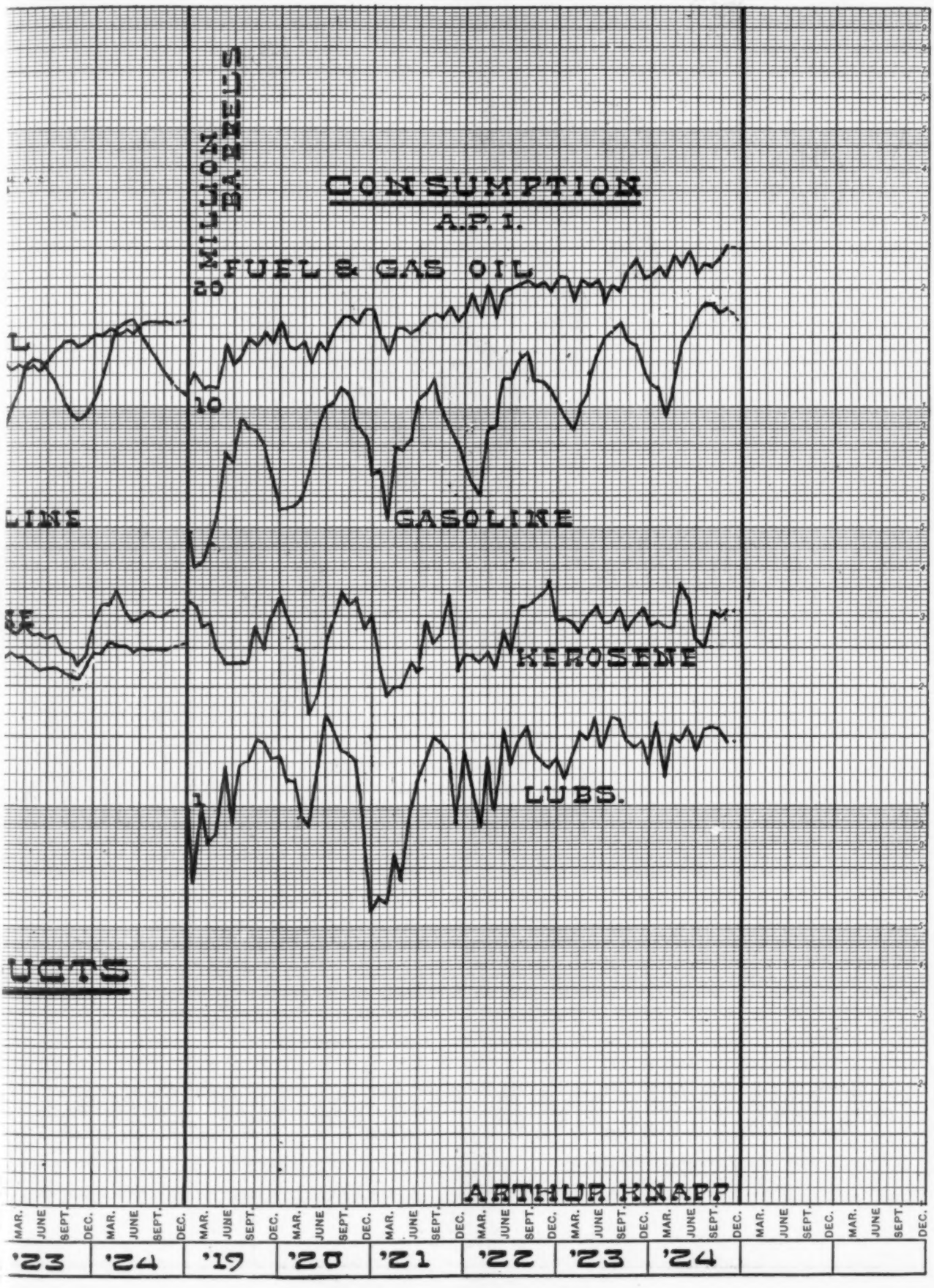


U. S. MONTHLY REFINERY OUTPUT AND STOCKS



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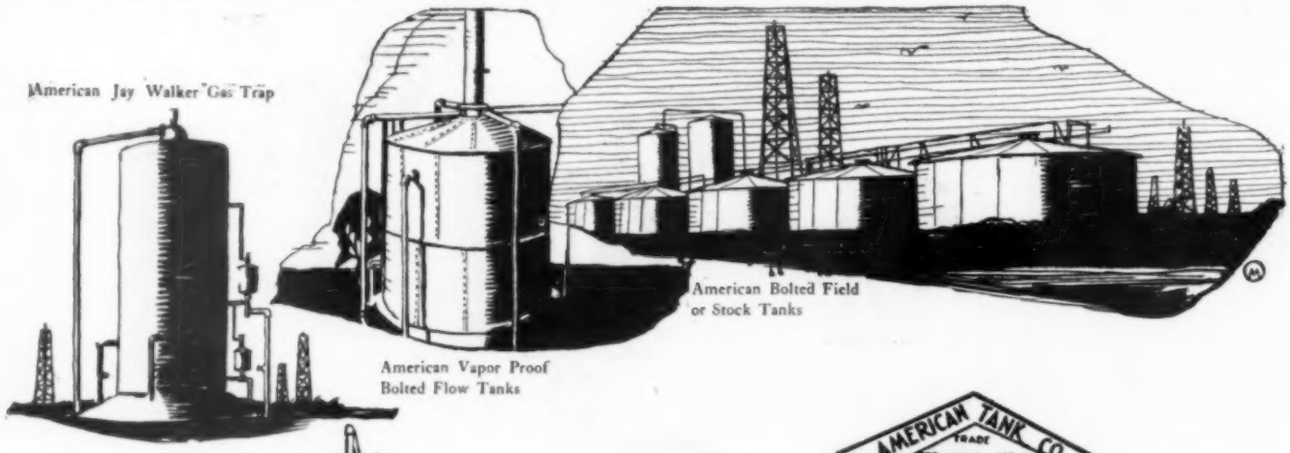

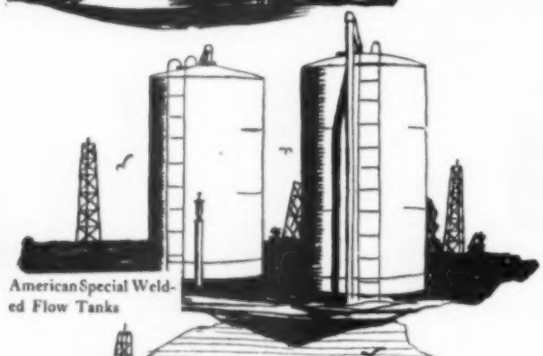

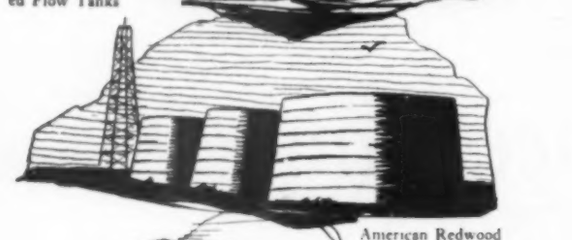

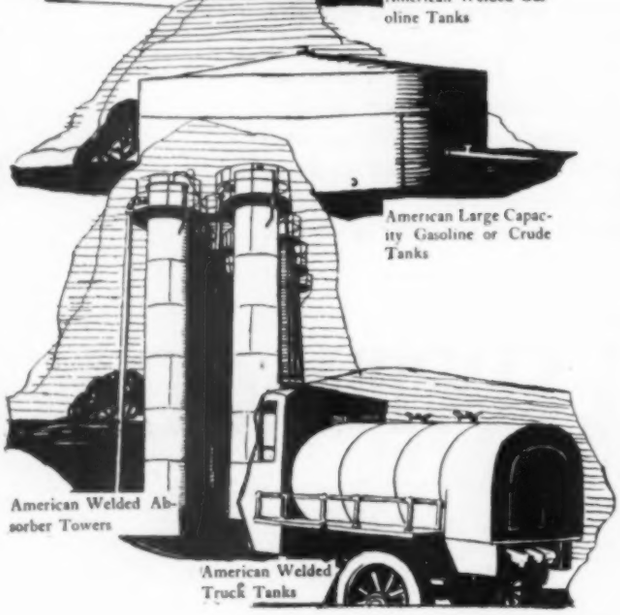

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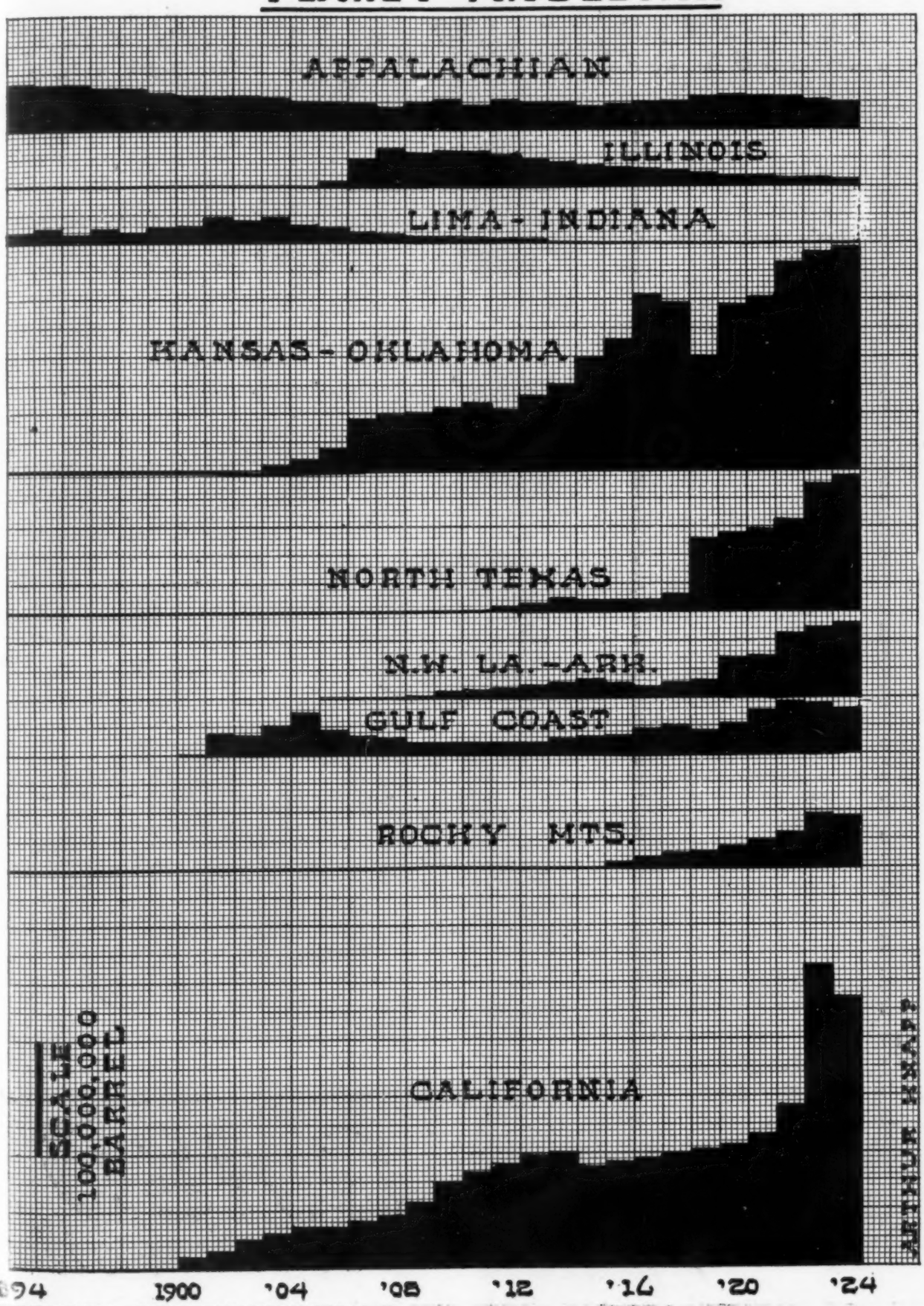

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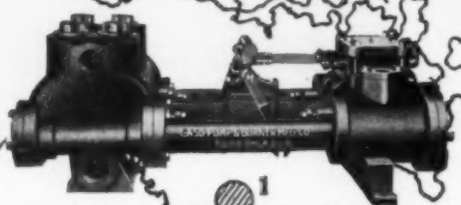

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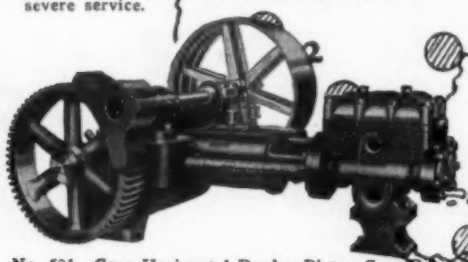

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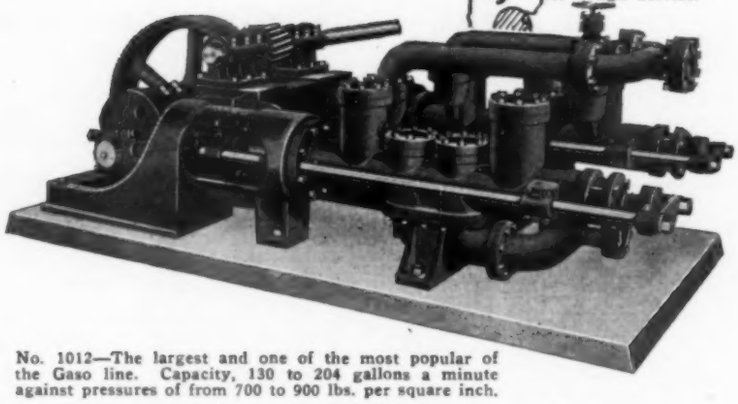
A Complete line of FITTINGS

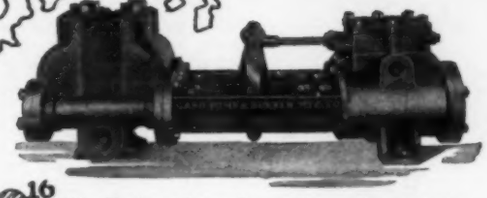
No. 604—Gaso Walking Beam Pump for Gas or Vacuum. For taking gas from pumping well or putting vacuum on well. Built for rough service.



No. 1012—The largest and one of the most popular of the Gaso line. Capacity, 130 to 204 gallons a minute against pressures of from 700 to 900 lbs. per square inch.

Oil and Gas for Everyone

Gaso Steam Supremacy

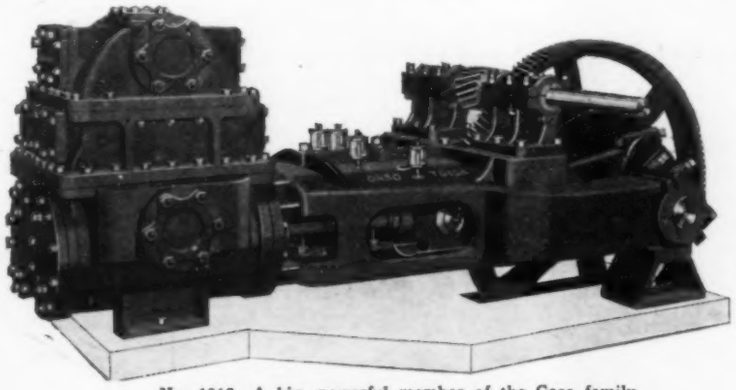


No. 404—Duplex Piston Steam Pump for pressures from 200 to 800 lbs. Valve pots accessible from outside.

No. 301—Gaso Piston Power Pump. Jackets [illegible]. Used by all large pipe line companies with [illegible] ble success.

No. 601—Gaso Walking Beam Pump — for pressures from 450 to 600 pounds. Straight-line pull, reducing wear on packing and stuffing box.

No. 401—Duplex Piston Steam Pump for pressures ranging from 200 to 800 lbs. Extensively used on oil lines and long water lines.



No. 1018—A big, powerful member of the Gaso family, designed for main line pipe line use. Available in three sizes—6, 8 or 10 x 18.

Big Companies Choose Wisely

Note How Many Use GASO PUMPS:

Prairie Pipe Line Co.

Sinclair Pipe Line Co.

Texas Pipe Line Co.

Magnolia Refining Co.

Pierce Oil Corporation

White Eagle Oil & Refining Co.

Paragon Refining Co.

Carter Oil Co.

Mammoth Oil Co.

Midwest Refining Co.

Central Pipe Line Co.

Cosden Pipe Line Co.

Humble Oil & Refining Co.

Gulf Pipe Line Co. of Ia.

Standard Oil Co.

and hundreds of others of similar prominence. A list of Gaso customers looks like a bluebook of the oil industry!

Gaso Pumps Gaso Gasoline

A. E. HUMPHREYS, *Pres.*
F. JULIUS FOHS, *Vice-Pres.*
J. A. ELKINS, *Vice-Pres.*

FRANK COX, *Vice-Pres.*
A. E. HUMPHREYS, JR. *Sec'y-Treas.*
F. W. DEWOLF, *Asst. Sec'y-Treas.*

HUMPHREYS-BOYD OIL COMPANY

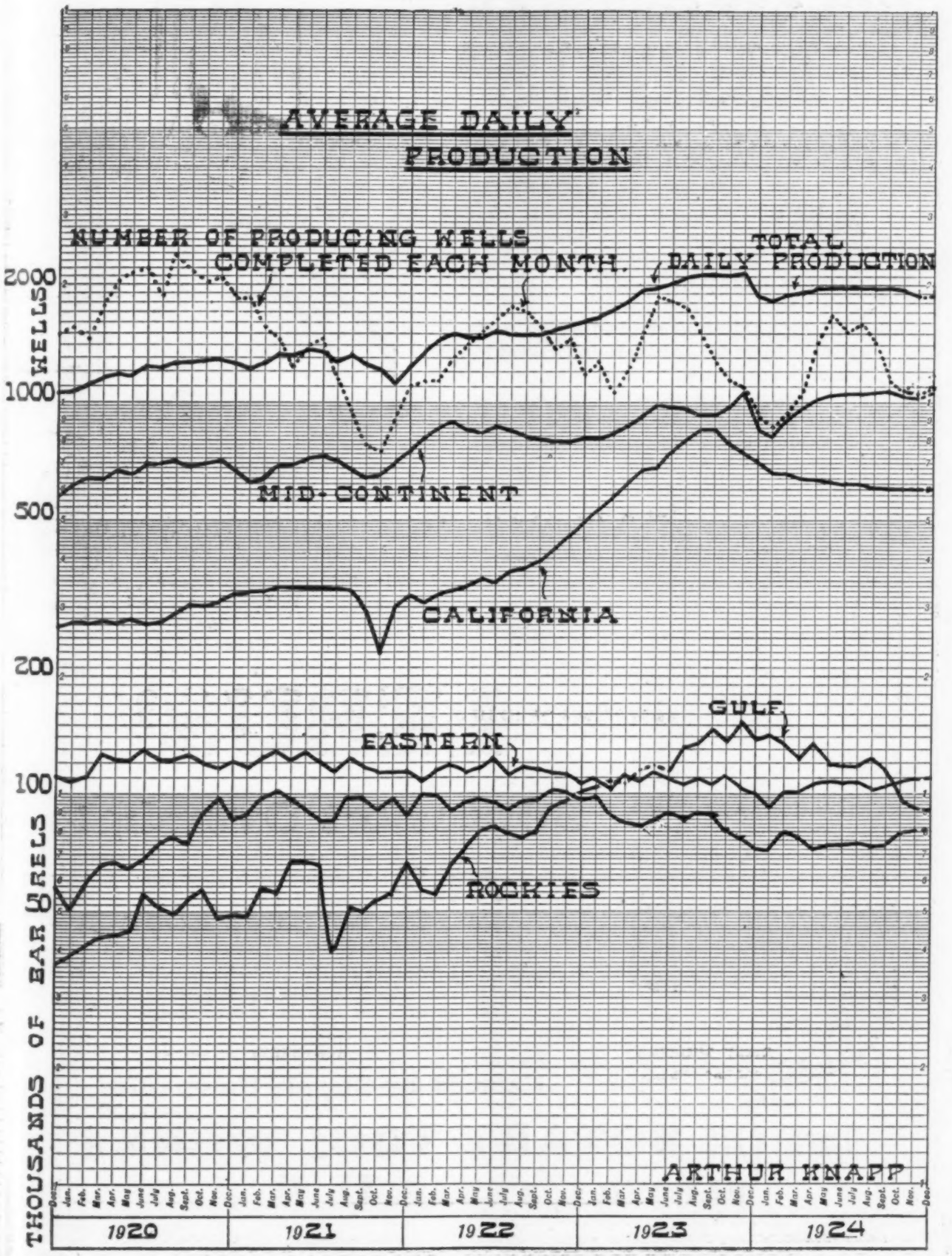
(Incorporated Delaware)

PRODUCERS OF HIGH GRADE CRUDE OIL
AND
CASING HEAD GASOLINE

KIRBY BUILDING,
DALLAS, TEXAS

HUMPHREYS BUILDING,
MEXIA, TEXAS

U. S. PRODUCTION AND FIELD STATISTICS



"Better Rotary Equipment"

Did You Know That—

LEBUS'

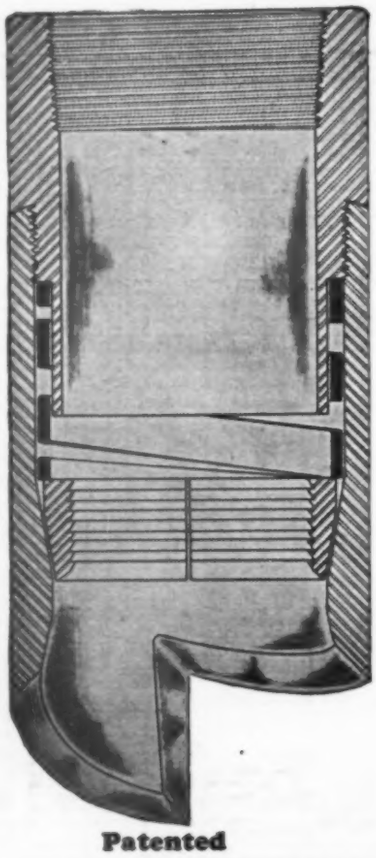
New Eureka Tongs

ARE equipped with quick change grips of every known size of drill pipe tool joint and casing within the diameter of the jaws.

That the control handle and spring latch go to make them the speediest and easiest tongs handled, ever made.

Hinge jaws, and four piece grips with teeth all around insure the greatest durability.

Patented



Patented

LEBUS'

Slipsocket Overshots

ARE equipped with slips for fishing for any sizes of plain pipe or tool joints that can enter into the bowl.

That the LeBus Overshot is the heaviest constructed and the nearest foolproof Overshot made.

Carried by Supply Companies

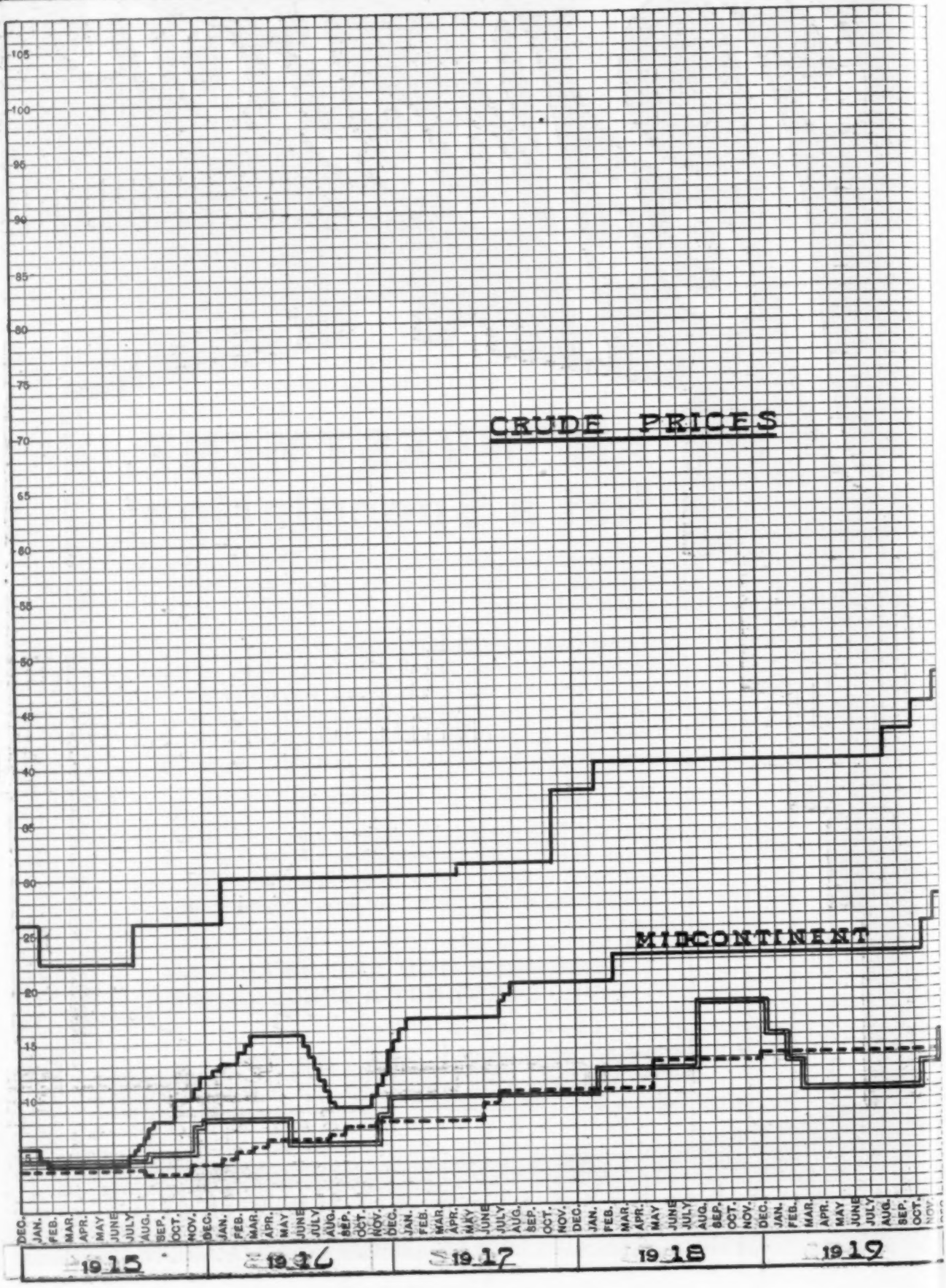
LEBUS ROTARY TOOL WORKS

ELECTRA, TEXAS, U. S. A.

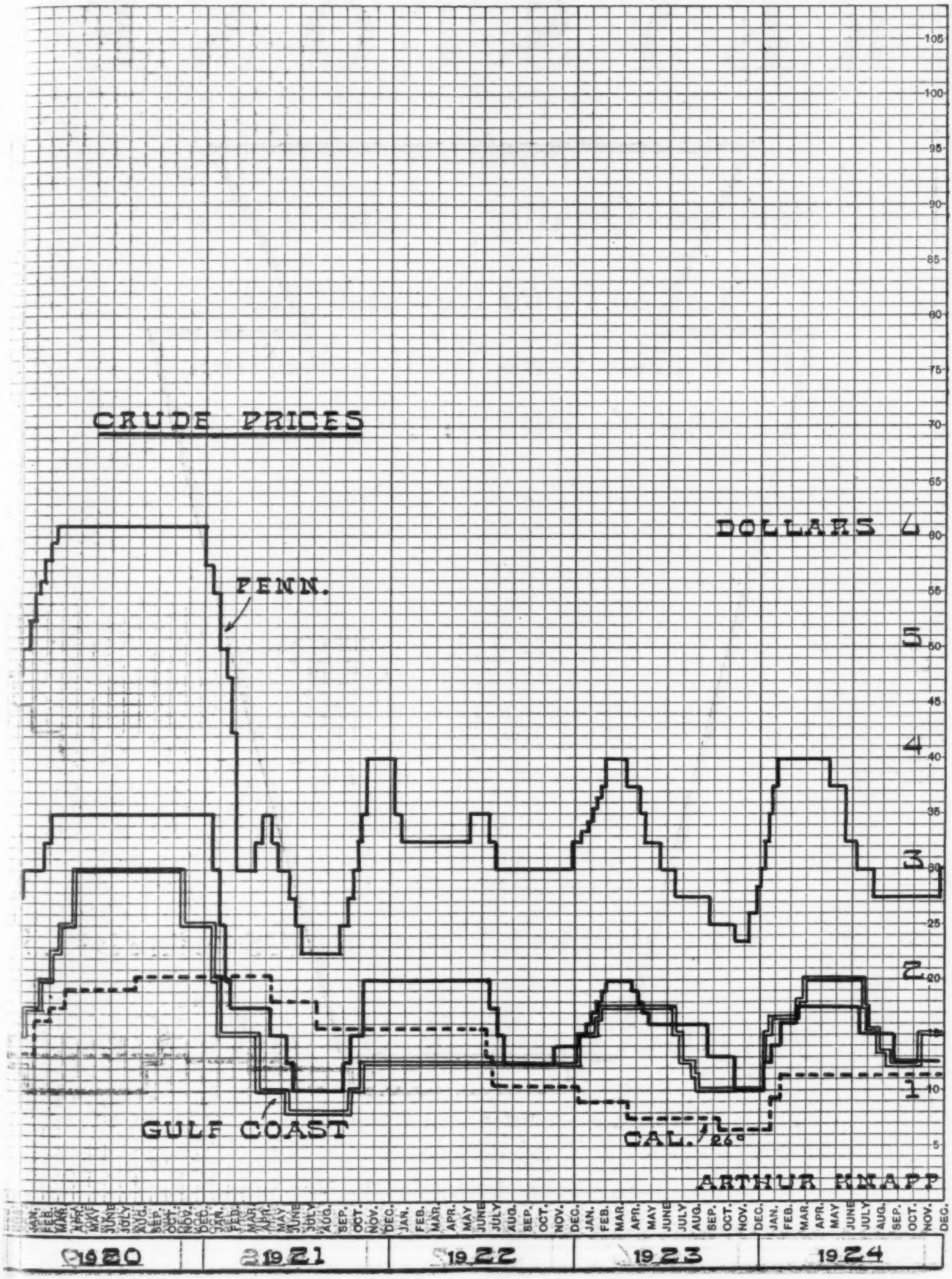
Perfection
AN INVESTMENT,
Not a Speculation!
You should use care in selecting your oil field equipment and especially your lease tanks. Don't take chances on an untried product.
You are taking no chances whatever in buying complete Perfection batteries. Really you are making an investment—one that will begin to pay you dividends when you make the installation. Our tanks are backed by almost 50 years of experience in tank building. Our trade mark everywhere, in itself is a guarantee of quality.
No trouble at all to get our tanks.
You will find our service stations and stores in all the active fields. Our representatives will be glad to show you how to begin saving money right away on lease tankage and it won't entail the least obligation on your part.
REMEMBER YOU ARE MAKING AN INVESTMENT NOT A SPECULATION
Black Sivalls & Bryson
INC
BARTLESVILLE ~ OKLAHOMA
THE TANK THAT PAYS A DAILY DIVIDEND

Say you saw it in The Oil Weekly

COMPARISON OF CRUDE PRICE STRUCTURE 1915-1924



COMPARISON OF CRUDE PRICE STRUCTURE 1915-1924



KEYSTONE

Stands for

Service - Quality - Responsibility

Call on Us for New and Used

Oil Well - Gas Well - Refinery Supplies

NEW PIPE IS EXPENSIVE. INSPECT THE FOLLOWING IN OUR YARDS AND SAVE THE DIFFERENCE

3,500 feet 4½" 15 lb. used casing
6,000 feet 6⅝" 24 lb. used casing
10,000 feet 8¼" 32 lb. used casing
6,000 feet 10" 40 lb. used casing
4,000 feet 12½" 50 lb. used casing
1,000 feet 15½" 70 lb. used casing
250 feet 20" 90 lb. used casing

20,000 feet 4" used line pipe
20,000 feet 6" used line pipe
30,000 feet 8" used line pipe

2 COMPLETE ROTARY RIGS

Keystone Pipe & Supply Co.

Eastern Headquarters, Butler, Penna.
Western Headquarters, Fort Worth, Texas
Branch Stores
Wichita Falls, Vernon, Holliday, Breckenridge, Texas

Say you saw it in The Oil Weekly

• DREAMS •

We are launched upon the great adventure of another year.

We will feel the love of life and eagerness to accomplish great things.

We are swept along by romance that our life cannot outdistance.

To the baby it is food and sunshine.

To the boy it is baseball and mechanics.

To the flapper it is marcels, dates and dances.

THE ROBINSON PACKER COMPANY dreams of better business.

We feel our service and quality cannot be improved and we are depending on better business conditions.

Fisher Swab

Casing Head Latch

Write us for literature on our new devices

Spiral Lead Plug

Robinson Packer Company

Factory:	Executive Office:	Branch Store:
Coffeyville, Kansas	Tulsa, Okla.	Blackwell, Okla.
Phone 66	Phone 3-8191	Phone 606

Ludlow Valves used in piping connection with the new 12,500 K. V. A. Turbo Generator Unit furnished by the Westinghouse Company for the Municipal Electric Light Department of Kansas City, Kansas

---

Here are some 36-inch Flanged End, Rising Stem, Outside Screw Yoke LUDLOW DOUBLE GATE VALVES in service at the Municipal Light Plant at Kansas City, Kansas.

These valves have a 400-pound working pressure for oil or gas. Electrically operated by Dean Control Unit and limit switches which prevent any possible danger of the jamming of gates.

Position of gates can always be determined by control lights on operating panel wherever located. Driving gears and motors are thoroughly enclosed and protected from moisture.

Remember we make these famous Ludlow Valves in sizes from 4 to 72 inches. No matter what your valve requirements are Ludlow can take care of them. Ludlow Valves through years and years of dependable service have earned a reputation of which we are justly proud.

Our nearest office will be glad to furnish you prices and particulars. Write for them

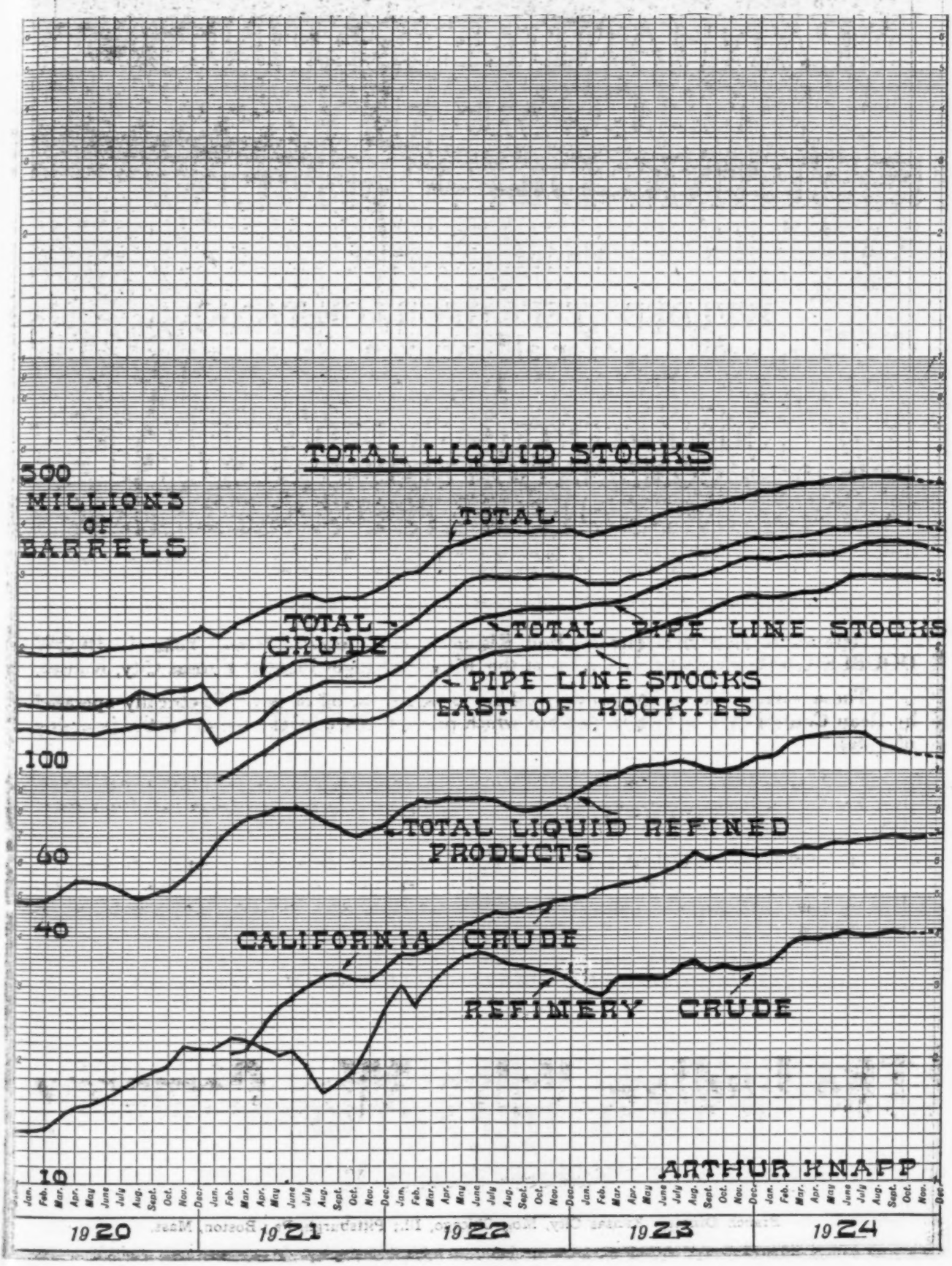
The Ludlow Valve Mfg. Company

(Established 1869)

Factory: Troy, N. Y.

Branch Offices: Kansas City, Mo.; Chicago, Ill.; Pittsburgh, Pa.; Boston, Mass.

COMPARISON OF CRUDE STOCKS



PANHANDLE REFINING COMPANY TANK DEPARTMENT

Manufacturers of

WELDED STEEL STORAGE TANKS
for all purposes

also

OUR PATENTED WELDED STEEL COMBINATION FLOW TANK AND GAS TRAP

We use only Copper Bearing, Rust Resisting Steel in the manufacture of our Welded Tanks

---

REDWOOD AND CYPRESS WOOD TANKS

CUT DOWN AND RESET SERVICE ON ALL MAKES OF TANKS

Distributors of
MALONEY COPPER BEARING STEEL BOLTED TANKS

PANHANDLE REFINING COMPANY TANK DEPARTMENT

WICHITA FALLS, TEXAS

Say you saw it in The Oil Weekly

"McEvoy Wireless" Well Strainer

for Oil, Gas and Water Wells

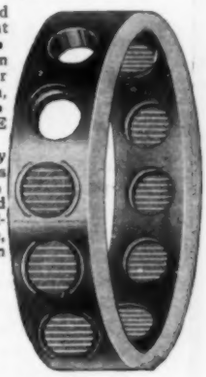
Section "McEvoy Wireless" Showing Flush Joint Style

Showing Complete Joint "McEvoy Wireless" Well Strainer

(Patented)

Section Showing Mechanical Construction "McEvoy Wireless"

1st—The hole is drilled in the thick wrought pipe——————>
2nd—The hole is then reamed to 5/8 inch for two-thirds of its depth, leaving that——————> heavy shoulder. SEE THAT SHOULDER?
3rd—The "McEvoy Wireless" wrought-brass strainer plug——————> is forced into the reamed hole down to that shoulder by heavy pressure, then riveted firmly in place.

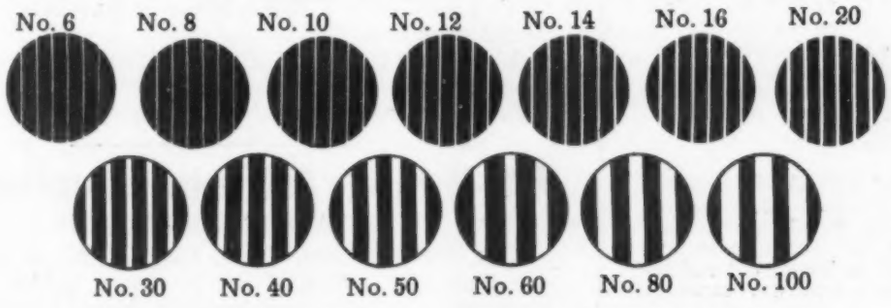


SEE THOSE HEAVY CLINCH MARKS AROUND THE STRAINER PLUGS

One GREAT Advantage in using Flush Joint McEVOY "WIRELESS" is that one-half inch larger strainer can be used inside of any other pipe or casing than pipe or strainer having couplings.

McEvoy "Wireless" Keeps the Sand Out and is standard equipment for many of the largest companies in the United States and foreign countries.

Different Meshes of "McEvoy Wireless"



Above are actual size. White lines represent opening in thousandths of an inch.

You Can Safely Rotate, Drive, Whip-Stock and Side-Track With It, Because "McEvoy Wireless" Always Hits Bottom in Perfect Condition

Write for Prices and Details

J. H. McEVOY & COMPANY, Houston, Tex.

Pacific Coast Branch McEVOY WIRELESS WELL STRAINER COMPANY, Los Angeles, Calif.

Minimize Your Drilling Problems—Tie Up With

W-K-M Oil Field Specialties

OTHER W-K-M SPECIALTIES:

W-K-M PACKERS—(Patents and patents pending)—made in four types—but these four types meet every oil field requirement: (a) W-K-M Earth Wall Packer; (b) W-K-M Combination Screw-off and Set-down Gas Anchor Packer; (c) W-K-M Improved Wall Packer; (d) W-K-M Improved Liner Packer with Setting Tool. All positive in setting and easily removed.

W-K-M SET SHOE COMBINATION—(Patent Applied For)—Set shoe, wash ring, back pressure valve, combined only 15" long over all. Used in all cases in connection with setting of liner and screen of any kind.

W-K-M ROTARY SLIPS—(Patented)—Most highly efficient pipe holding device ever invented. First cost usually absorbed in drilling first well because of saving.

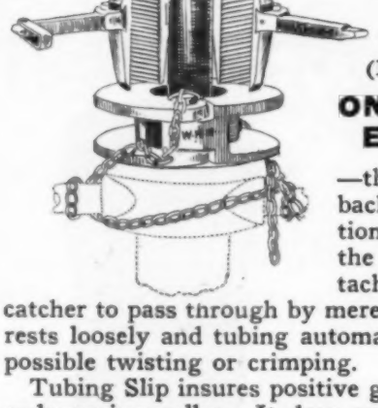
W-K-M TOOL JOINTS—(Guiberson type) made up in four to four and a quarter turns, which by experience has proved the minimum for safety and saving time.

W-K-M STANDING VALVES—Oversize, hydraulic — (Patents pending) made in steel, all bronze, or steel and bronze combination.

EMSCO WELL SCREENS—(Patented)—Distributed exclusively in Gulf Coast and Mid-Continent fields by this company. Made from standard pipe, with V shape slots. Will not cut out and has no feather edges.

W-K-M RELEASING SPEARS—(Patent Applied For)—Combination Releasing and Jar Down Spears, can be used for jarring pipe upwards as well as downward and releasing feature acts the same in either case.

—And many Others.



W-K-M Tubing Slips and Spiders

(PATENT APPLIED FOR)

ONE HOUR SAVING ON EACH TUBING JOB

—that means one hour quicker back on INCREASED production and more tubing jobs to the day. Spider is quickly attached and allows tubing catcher to pass through by merely opening up parts; spider rests loosely and tubing automatically centers, eliminating possible twisting or crimping.

Tubing Slip insures positive grip at any position without endangering collar. It does away with one pair of tongs and only one elevator and one man needed to operate.

Write us for complete descriptive matter and prices on this equipment.

The New W-K-M PIPE CLEANING MACHINE

(PATENTED)

Does the Work of Large Crew of Workmen

A new appliance on the market—but thoroughly tested and proven to satisfaction of large users.

Cleans all RUST, SCALE and DIRT off ouside of pipe. Available in sizes to clean anything from 1 inch up to 16 inch pipe.

Cleans pipe absolutely clean, ready for painting and insulating.

In two types—

(a) TRACTOR TYPE—Made to travel on a continuous loaded pipe line.

(b)—STATIONARY TYPE—Made for cleaning single joints of pipe.

Full information furnished on request.

W-K-M Kibele Automatic Expanding Pistons

(PATENT APPLIED FOR)

Last word in Slush Pump Pistons and does away with pump troubles. W-K-M-Kibele Piston Rubber Rings wear many times longer than ordinary piston sleeves and give greater pressure with less steam required. Prices and information on request.

Write Today for Illustrated Booklet

W-K-M CO., Inc., Houston, Texas

Manufacturers and Distributors of Oil Field Specialties

World's Production of Crude Petroleum Since 1857, by Years and Countries, in Barrels of 42 Gallons

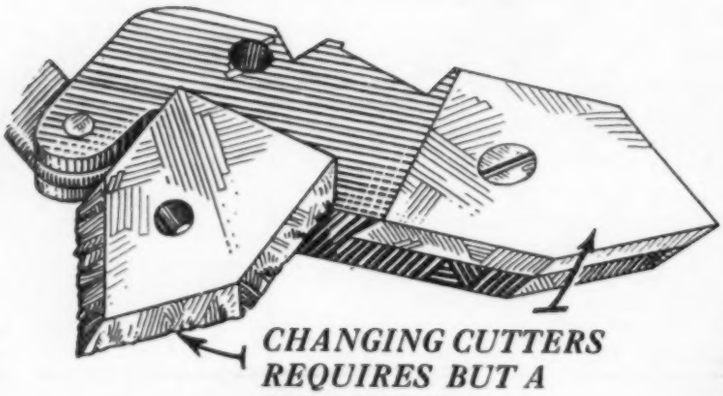
Year	Rumania	United States	Italy	Canada	Russia	Galicia	Japan and Formosa	Germany	India	Dutch East Indies	Peru	Mexico	Argentina	Trinidad	Egypt	Other Countries	Total	Year	Pct. Prod. by U. S.
1857	1,977	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,977	1857	.00
1858	3,560	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,560	1858	.00
1859	4,349	2,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,349	1859	31.5
1860	8,542	500,000	36	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	508,578	1860	98.3
1861	17,279	2,113,609	29	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,130,917	1861	99.1
1862	23,198	3,056,690	29	11,775	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,091,692	1862	98.8
1863	27,943	2,611,309	58	82,814	40,816	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,762,940	1863	94.5
1864	33,013	2,116,109	72	90,000	64,686	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,303,780	1864	90.5
1865	39,017	2,497,700	2,265	110,000	66,542	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,715,524	1865	91.9
1866	42,534	3,597,700	992	175,000	83,052	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,899,278	1866	92.3
1867	50,838	3,347,300	791	190,000	119,917	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,708,846	1867	90.2
1868	55,369	3,646,117	367	200,000	88,327	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,990,180	1868	91.2
1869	58,533	4,215,000	144	220,000	202,308	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,695,985	1869	89.9
1870	83,765	5,260,745	86	250,000	204,618	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5,799,214	1870	90.7
1871	90,030	5,205,234	273	269,397	165,129	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5,730,063	1871	90.8
1872	91,251	6,293,194	331	308,100	184,391	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,877,267	1872	91.5
1873	104,036	9,893,786	467	365,052	474,379	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10,837,720	1873	91.3
1874	103,177	10,926,945	604	168,807	583,751	149,837	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11,933,121	1874	91.5
1875	108,569	8,787,514	813	220,000	697,364	158,522	4,566	.....	.....	.....	.....	.....	.....	.....	.....	.....	9,977,348	1875	88.1
1876	111,314	9,132,669	2,891	312,000	1,320,528	164,157	7,708	.....	.....	.....	.....	.....	.....	.....	.....	.....	11,051,267	1876	82.6
1877	108,569	13,350,363	2,934	312,000	1,800,720	169,792	9,560	.....	.....	.....	.....	.....	.....	.....	.....	.....	15,753,938	1877	85.4
1878	109,300	15,396,868	4,329	312,000	2,400,960	175,420	17,884	.....	.....	.....	.....	.....	.....	.....	.....	.....	18,416,761	1878	84.7
1879	110,007	19,914,146	2,891	575,000	2,761,104	214,800	23,457	.....	.....	.....	.....	.....	.....	.....	.....	.....	23,601,405	1879	84.3
1880	114,321	26,286,123	2,035	350,000	3,091,200	229,120	25,497	9,310	.....	.....	.....	.....	.....	.....	.....	.....	30,017,606	1880	87.6
1881	121,511	27,661,238	1,237	275,000	3,601,441	286,400	16,751	29,219	.....	.....	.....	.....	.....	.....	.....	.....	31,992,797	1881	86.4
1882	136,610	30,349,897	1,316	275,000	4,537,815	330,076	15,549	58,025	.....	.....	.....	.....	.....	.....	.....	.....	35,704,288	1882	85.0
1883	139,486	23,449,633	1,618	250,000	6,002,401	365,160	20,473	26,708	.....	.....	.....	.....	.....	.....	.....	.....	30,255,479	1883	77.5
1884	210,667	24,218,438	2,855	250,000	10,804,577	408,120	27,923	46,161	.....	.....	.....	.....	.....	.....	.....	.....	35,968,741	1884	67.3
1885	193,411	21,858,785	1,941	250,000	13,924,596	465,400	29,237	41,360	.....	.....	.....	.....	.....	.....	.....	.....	36,764,730	1885	59.4
1886	168,606	28,064,841	1,575	584,061	18,006,407	305,884	37,916	73,864	.....	.....	.....	.....	.....	.....	.....	.....	47,243,154	1886	59.4
1887	181,907	28,283,483	1,496	525,655	18,367,781	343,832	28,645	74,284	.....	.....	.....	.....	.....	.....	.....	.....	47,807,083	1887	59.2
1888	218,576	27,612,025	1,251	695,203	23,048,787	466,537	37,436	84,782	.....	.....	.....	.....	.....	.....	.....	.....	52,164,597	1888	52.9
1889	297,666	35,163,513	1,273	704,690	24,609,407	515,268	52,811	68,217	94,250	.....	.....	.....	.....	.....	.....	.....	61,507,095	1889	57.2
1890	383,227	45,823,572	2,998	795,030	28,691,218	659,012	51,420	108,296	118,065	.....	.....	.....	.....	.....	.....	.....	76,632,838	1890	59.9
1891	488,201	54,292,655	8,305	755,298	34,573,181	630,730	52,917	108,929	190,131	.....	.....	.....	.....	.....	.....	.....	91,100,347	1891	59.6
1892	593,175	50,514,657	18,321	779,753	35,774,504	646,220	68,901	101,404	242,284	.....	.....	.....	.....	.....	.....	.....	88,739,219	1892	56.9
1893	535,655	48,431,066	19,069	798,406	40,456,519	692,669	106,384	99,390	298,569	600,000	.....	.....	.....	.....	.....	.....	92,038,127	1893	52.6
1894	507,255	49,344,516	20,552	829,104	36,375,428	949,146	171,744	122,564	327,218	688,170	.....	.....	.....	.....	.....	.....	89,335,697	1894	55.2
1895	575,200	52,892,276	25,843	726,138	46,140,174	1,452,999	141,310	121,277	371,536	1,215,757	.....	.....	.....	.....	.....	.....	103,662,510	1895	51.0
1896	543,348	60,960,361	18,149	726,822	47,220,633	2,443,080	197,082	145,061	429,979	1,427,132	47,536	.....	.....	.....	.....	.....	114,159,183	1896	53.4
1897	570,886	60,475,516	13,892	709,857	54,399,568	2,226,368	218,559	165,745	545,704	2,551,649	70,831	.....	.....	.....	.....	.....	121,948,575	1897	49.5
1898	776,238	55,364,233	14,489	758,391	61,609,357	2,376,108	265,389	183,427	542,110	2,964,035	70,905	.....	.....	.....	.....	.....	124,924,682	1898	44.4
1899	1,425,777	57,070,850	16,121	808,570	65,954,968	2,313,047	536,079	192,232	940,971	1,795,961	89,166	.....	.....	.....	.....	.....	131,143,742	1899	43.5
1900	1,628,535	63,620,529	12,102	913,498	75,779,417	2,346,505	866,814	358,297	1,078,264	2,253,355	274,800	.....	.....	.....	.....	.....	149,132,116	1900	42.5
1901	1,678,320	69,389,194	16,150	756,679	85,168,556	3,251,544	1,110,790	313,630	1,430,716	4,013,710	274,800	10,345	.....	.....	.....	20,000	167,434,434	1901	41.4
1902	2,059,935	88,766,916	18,933	530,624	80,540,044	4,142,159	1,193,038	353,674	1,617,363	2,430,465	286,725	40,200	.....	.....	.....	26,000	182,006,076	1902	48.8
1903	2,763,117	100,461,337	17,876	486,637	75,591,256	5,234,475	1,209,371	445,818	2,510,259	5,770,056	278,092	75,375	.....	.....	.....	36,000	194,879,669	1903	51.5
1904	3,599,026	117,080,960	25,476	552,575	78,536,655	5,947,383	1,419,473	637,431	3,385,468	6,508,485	345,834	125,625	.....	.....	.....	40,000	218,204,391	1904	53.7
1905	4,420,987	134,717,580	44,027	634,095	54,960,270	5,765,317	1,472,804	560,963	4,137,098	7,849,896	447,880	251,250	.....	.....	.....	30,000	215,292,167	1905	62.6
1906	6,378,184	126,493,936	53,577	569,753	58,897,311	5,467,967	1,710,768	578,610	4,015,803	8,180,657	536,294	502,500	.....	.....	.....	30,000	213,415,360	1906	59.2
1907	8,118,207	166,095,335	59,875	788,872	61,850,734	8,455,841	2,001,838	756,631	4,344,162	9,982,597	756,226	1,005,000	101	.....	.....	30,000	264,245,419	1907	63.2
1908	8,252,157	178,527,355	50,966	527,987	62,186,447	12,612,295	2,070,145	1,009,278	5,047,038	10,283,357	1,011,180	3,932,900	11,472	169	.....	30,000	285,552,746	1908	62.5
1909	9,327,278	183,170,874	42,388	420,755	65,970,350	14,932,799	1,889,563	1,018,837	6,676,517	11,041,852	1,316,118	2,713,500	18,431	57,143	.....	20,000	298,616,405	1909	61.3
1910	9,723,806	209,557,248	50,830	315,895	70,336,574	12,673,688	1,930,661	1,032,522	6,137,990	11,030,620	1,330,105	3,634,080	20,753	142,857	.....	20,000	327,937,629	1910	64.0
1911	11,107,450	220,449,391	74,709	291,096	66,183,691	10,519,270	1,658,903	1,017,045	6,451,203	12,172,949	1,368,274	12,552,798	13,119	285,307	9,150	20,000	344,174,355	1911	64.0
1912	12,976,232	222,935,044	53,778	243,336	68,019,208	8,535,174	1,671,405	1,031,050	7,116,672	10,845,624	1,751,143	16,558,215	47,007	436,805	205,905	20,000	352,446,598	1912	68.9
1913	13,554,768	248,446,230	47,198	228,080	62,834,356	7,818,130	1,942,009	995,764	7,930,149	11,172,294	2,133,261	25,696,291	130,618	503,616	94,635	20,000	383,547,399	1913	64.7
1914	12,826,579	265,762,535	39,849	214,805	67,020,522	5,033,350	2,738,378	995,764	7,409,792	11,834,802	1,917,802	26,235,403	275,500	643,533	777,038	20,000	403,745,342	1914	65.8
1915	12,029,913	281,104,104	43,898	215,464	68,548,062	4,158,899	3,118,464	995,764	8,202,674	12,386,800	2,487,251	32,910,508	516,120	750,000	262,208	10,000	427,740,129	1915	65.7
1916	10,298,208	300,767,158	50,585	198,123	72,801,110	6,461,706	2,997,178	995,764	8,491,137	13,174,399	2,550,645	40,545,712	796,920	928,581	411,000	25,000	461,493,226	1916	65.2
1917	2,681,870	335,315,601	50,334	205,332	69,000,000	5,965,447	2,898,654	995,764	8,078,843	12,928,955	2,533,417	55,292,770	1,144,737	1,599,455	1,008,750	7,004,973	506,702,902	1917	66.2
1918	8,730,235	355,927,716	35,953	304,741	40,456,182	5,591,620	2,449,069	711,260	8,000,000	13,284,936	2,536,102	63,828,327	1,321,315	2,082,068	2,079,750	7,390,080	514,729,354	1918	69.1
1919	6,614,000	377,719,000	35,000	241,000	25,495,000	6,054,000	2,175,000	234,000	8,735,000	15,428,000	2,616,000	87,073,000	1,183,000	1,841,000	1,501,100	750,000	544,885,000	1919	62.0
1920	7,435,344	443,402,000	34,180	196,937	25,429,600	5,606,116	2,139,777	212,046	7,500,000	17,529,210	2,816,649	163,540,000	1,665,989	2,083,027	1,042,000	14,221,125	694,854,000	1920	63.8
1921	8,368,000	472,183,000	34,400	190,338	29,150,000	5,167,000	2,447,600	200,000	8,000,000	16,958,105	3,699,280	193,397,587	1,747,410	2,354,000	1,255,000	19,913,880	765,065,000	1921	61.7
1922	9,843,000	557,531,000	31,000	179,000	32,966,000	.....	2,042,000	319,000	7,700,000	16,720,000	5,314,000	182,278,000	3,018,000	2,445,000	1,188,000	33,235,000	854,809,000	1922	65.2
1923	10,867,000	732,407,000	34,000	170,000	39,156,000	5,373,000	1,789,000	312,000	8,320,000	19,868,000	5,699,000	149,858,000	3,400,000	3,051,000	1,054,000	*37,855,000	1,019,213,000	1923	71.8
1924	13,000,000	710,463,600	.....	170,000	44,000,000	5,750,000	1,666,660	33,330	8,000,000	21,000,000	6,000,000	144,000,000	4,000,000	3,333,330	1,000,000	44,045,000†	1,009,461,920	1924	70.3
T'ls	207,539,000	7,938,432,600	1,151,800	25,572,000	2,049,393,000	182,001,350	17,754,660	17,984,330	155,478,000	294,130,000	50,509,000	1,206,105,000	19,390,000	22,540,330	11,461,000	195,707,000	12,385,149,100	1924	

NOTE—Survey carries totals in round numbers.

*Includes Persia, 28,793,000; Venezuela, 59,000; British Borneo, 3,940,000; Colombia, 424,000; France, 403,000; Czechoslovakia, 74,000; Barbados, 10,000; Algeria, 9,000; Cuba, 4,000; others (estimated). 99,000. Figures from United States Geological Survey, Department of Interior.

†Includes Persia, 34,000,000; Venezuela, 8,000,000; British Borneo (Sarawak) 4,500,000; Colombia, 500,000; France, 450,000.

The STANDARD COLLAPSIBLE ROTARY DRILL



CHANGING CUTTERS REQUIRES BUT A FEW MINUTES

Descends inside the drill stem and expands to required diameter at bottom of the collar. It is quickly collapsed and withdrawn to surface for change of cutters, without removing drill stem.

It is the driller's and roughneck's friend, as it saves them much labor, and is the well owner's protection against rapid depletion of his bank account.

The Core Barrel is attached to the drill and descends like the drill inside the drill stem and is revolved by the drill stem collar. It is withdrawn in the same manner as the drill. The cutters are removable and when dull can be easily and quickly replaced.

The drill stem can be revolved while the core barrel is descending and ascending, and while the cutters are being changed, which prevents the slightest danger of "freezing".

Drills for 4 inch drill stems cut any size hole from 6¼ to 11 inches in diameter. Drills for six inch drill stem cut holes any diameter from 14 to 20 inches.

Write for folder containing full information

INVENTED, PATENTED AND MANUFACTURED BY

O. M. CARTER

W. T. HILTPOLD, SALES AGENT
206-7-8 SCANLAN BLDG.
HOUSTON, TEXAS

Say you saw it in The Oil Weekly

Petroleum Marketed in the United States, 1859-1924, in Barrels of 42 Gallons

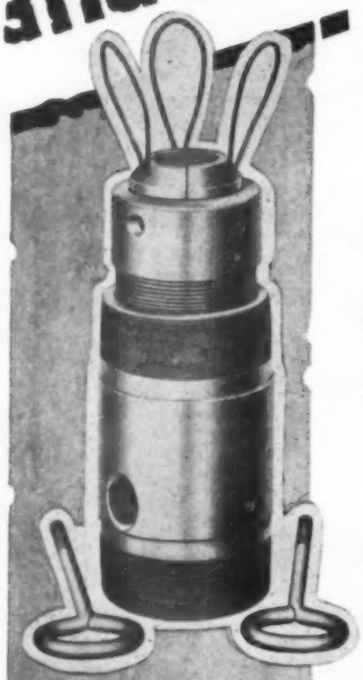
(OIL BURNED ON LEASE NOT INCLUDED)

Year	Pennsylvania and New York	Ohio	West Virginia	California	Kentucky and Tennessee	Colorado	Indiana	Illinois	Kansas	Texas	Missouri	Oklahoma	Wyoming Includes Montana	Louisiana	United States	Total Value	Year
1859	2,000														2,000	$ 32,000	1859
1860	500,000														500,000	4,800,000	1860
1861	2,113,609														2,113,609	1,035,668	1861
1862	3,056,690														3,056,690	3,209,525	1862
1863	2,611,309														2,611,309	8,225,663	1863
1864	2,116,109														2,116,109	20,896,576	1864
1865	2,497,700														2,497,700	16,459,853	1865
1866	3,597,700														3,597,700	30,455,398	1866
1867	3,347,300														3,347,300	8,066,993	1867
1868	3,646,117														3 646,117	13,217,174	1868
1869	4,215,000														4,215,000	23,730,450	1869
1870	5,260 745														5,260,745	20,503,754	1870
1871	5,205,234														5,205,234	22,591,180	1871
1872	6,293,194														6,293,194	21,440,503	1872
1873	9,893,786														9,983,786	18,100,464	1873
1874	10,926,945														10,926,945	12,647,527	1874
1875	8,787,514														8,787,514	7,368,133	1875
1876	8,968,906	31,763	120,000	12,000											9,132,669	22,982,822	1876
1877	13,135,475	29,888	172,000	13,000											13,350,363	31,788,566	1877
1878	15,163,462	38,179	180,000	15,227											15,396,868	18,044,620	1878
1879	19,685,176	29,112	180,000	19,858											19,914,146	17,210,708	1879
1880	26,027,631	38,940	179,000	40,552											26,286,123	24,600,638	1880
1881	27,376,509	33,867	151,000	99,862											27,661,238	25,448,339	1881
1882	30,053,500	39,761	128,000	128,636											30,349,897	23,631,165	1882
1883	23,128,389	47,632	126,000	142,857	4,755										23,449,663	25,790,252	1883
1884	23,772,209	90,081	90,000	262,000	4,148										24,218,438	20,595,966	[1]1884
1885	20,776,041	661,580	91,000	325,000	5,164										21,858,785	19,198,243	1885
1886	25,798,000	1,782,970	102,000	377,145	4,726										28,064,841	19,996,313	1886
1887	22,356,193	5,022,632	145,000	678,572	4,791	76,295									28,288,483	18,877,094	1887
1888	16,488,668	10,010,868	119,448	690,333	5,096	297,612									27,612,025	17,947,620	1888
1889	21,487,435	12,471,466	544,113	303,220	5,400	316,476	33,375	1,460	500	48	20				35,163,513	26,963,340	1889
1890	28,458,208	16,124,656	492,578	307,360	6,000	368,842	63,496	900	1,200	54	278				45,823,572	35,365,105	1890
1891	33,009,236	17,740,301	2,406,218	323,600	9,000	655,482	136,634	675	1,400	54	25	30			54,292,655	30,529,553	1891
1892	28,422,377	16,362,921	3,810,086	385,049	6,500	824,000	136,634	521	5,000	45	10	80			50,514,657	25,906,463	1892
1893	20,314,513	16,249,769	8,445,412	470,179	3,000	594,390	2,335,293	400	18,000	50	50	10			48,431,066	28,950,326	1893
1894	19,019,990	16,792,154	8,577,624	705,969	1,500	515,746	3,688,666	300	40,000	60	8	130	2,369		49,344,516	35,522,095	1894
1895	19,144,390	19,545,233	8,120,125	1,208,482	1,500	438,232	4,386,132	200	44,430	50	10	37	3,455		52,892,276	57,632,296	1895
1896	20,584,421	23,941,169	10,019,770	1,252,777	1,680	361,450	4,680,732	250	113,571	1,450	43	170	2,878		60,960,361	58,518,709	1896
1897	19,262,066	21,560,515	13,090,045	1,903,411	322	384,934	4,122,356	500	81,098	65,975	19	625	3,650		60,475,516	40,874,072	1897
1898	15,948,464	18,738,708	13,615,101	2,257,207	5,568	444,383	3,730,907	360	71,980	546,070	10		5,475		55,364,233	44,193,359	1898
1899	14,374,512	21,142,108	13,910,630	2,642,095	18,280	390,278	3,848,182	360	69,700	669,013	132		5,560		57,070,850	64,603,904	1899
1900	14,559,127	22,362,730	16,195,675	4,324,484	62,259	317,385	4,874,392	200	74,714	836,039	[1]1,602	6,472	5,450		63,620,529	75,989,313	1900
1901	13,831,996	21,648,083	14,177,126	8,786,330	137,259	460,520	5,757,086	250	179,151	4,393,658	[2]2,335	10,000	5,400		69,389,194	66,417,335	1901
1902	13,183,610	21,014,231	13,513,345	13,984,268	185,331	396,901	7,480,896	200	331,749	18,083,658	[3]757	37,100	6,253	548,617	88,766,916	71,178,910	1902
1903	12,518,134	20,480,286	12,899,395	24,382,372	554,286	483,925	9,186,411		932,214	17,955,572	[3]3,000	138,911	8,960	917,771	100,461,337	94,694,050	1903
1904	12,239,026	18,876,631	12,644,686	29,649,434	998,284	501,763	11,339,124		4,250,779	22,241,413	[3]2,572	1,366,248	11,542	2,958,958	117,080,960	101,175,455	1904
1905	11,554,777	16,346,660	11,578,110	33,427,473	1,217,337	376,238	10,964,247	181,084	[4]12,013,495	28,136,189	[3]3,100	[3]	8,454	8,910,416	134,717,580	34,157,399	1905
1906	11,560,410	14,787,763	10,120,935	33,098,598	1,213,548	327,582	7,673,477	4,397,050	[5]21,718,648	12,567,897	[3]3,500	[3]	[7]7,000	9,077,528	126,493,936	92,444,735	1906
1907	11,211,606	12,207,448	9,095,296	39,748,375	820,844	331,851	5,128,037	24,281,973	2,409,521	12,322,696	[4]4,000	43,524,128	[8]9,339	5,000,221	166,095,335	120,106,749	1907
1908	10,584,453	10,858,797	9,523,176	44,854,737	[6]727,767	379,653	3,283,629	33,686,238	1,801,781	11,206,464	[3]15,246	45,798,765	[8]17,775	5,788,874	178,527,355	129,079,184	1908
1909	10,434,300	10,632,793	10,745,092	55,471,601	[6]639,016	310,861	2,296,086	30,898,339	1,263,764	9,534,467	[3]5,750	47,859,218	[8]20,056	3,059,531	183,170,874	128,328,487	1909
1910	9,848,500	9,916,370	11,753,071	73,010,560	[6]468,774	239,794	2,159,725	33,143,362	1,128,668	8,899,266	[3]3,615	52,028,718	[8]115,430	6,841,395	209,557,248	127,899,688	1910
1911	9,200,673	8,817,112	9,795,464	81,134,391	[6]472,458	226,926	1,695,289	31,317,038	1,278,819	9,526,474	[3]7,995	56,069,637	[8]186,695	10,720,420	220,449,391	134,044,752	1911
1912	8,712,076	[3]8,969,007	12,128,962	[3]87,272,593	[6]848,368	206,052	970,009	28 601,308	1,592,796	11,735,057	[3]	51,427,071	1,572,306	9,263,439	222,935,044	164,213,247	1912
1913	8,865,493	8,781,468	11,567,299	97,788,525	[6]524,568	188,568	956,095	23,893,899	2,375,029	15,009,478	[8]10,843	63,579,384	2,406,522	12,498,828	248,446,230	237,121,388	1913
1914	9,109,309	8,536,352	9,680,033	99,775,327	[6]502,441	222,773	1,335,456	21,919,749	3,103,585	20,068,184	[9]7,792	73,631,724	3,560,375	14,309,435	265,762,535	214,125,215	1914
1915	8,726,483	7,825,326	9,264,798	86,591,535	[6]437,274	208,475	875,758	19,041,695	2,823,487	24,942,701	[10]14,265	97,915,243	4,245,325	18,191,539	281,104,104	179,462,890	1915
1916	8,466,481	7,744,511	8,731,184	90,951,936	1,203,246	197,235	769,036	17,714,235	8,738,077	27,644,605	.....	107,071,715	6,234,137	15,248,138	300,767,158	330,899,868	1916
1917	8,612,885	7,750,540	8,379,285	93,877,549	3,100,356	121,231	759,432	15,776,860	36,536,125	32,413,287	.....	107,507,471	8,978,680	11,392,201	[6]335,315,601	522,635,213	1917
1918	8,216,655	7,285,005	7,866,628	97,531,997	4,376,342	143,286	877,558	13,365,974	45,451,017	38,750,031	.....	103,347,070	12,596,287	16,042,600	[6]355,927,716	703,943,961	1918
1919	9,441,976	8,243,592	9,032,688	101,221,784	5,027,904	241,680	929,780	12,436,000	34,769,100	85,312,000	.....	81,127,900	13,342,320	16,250,000	377,719,000	867,753,379	1919
1920	8,360,400	7,412,000	8,173,050	105,668,000	8,692,600	110,000	932,000	10,772,000	38,500,000	96,000,000	.....	105,725,000	17,407,000	35,649,000	443,402,000	1,360,000,000	1920
1921	8,414,000	7,333,000	8,003,000	114,709,000	8,963,000	108,200	1,163,000	10,044,000	36,232,000	103,322,000	.....	113,978,000	20,656,800	26,523,000	469,639,000	753,000,000	1921
1922	8,505,000	6,775,000	7,015,000	138,907,000	9,603,000	96,500	1,089,000	9,409,000	31,891,000	117,106,545	.....	147,414,000	29,177,265	33,889,480	556,207,725	.....	1922
1923	8,590,000	7,123,000	6,452,000	158,387,119	8,110,140	95,500	1,049,000	8,724,000	29,406,925	125,991,628	.....	155,573,392	48,258,170	22,812,685	725,057,305	.....	1923
1924	8,860,000	6,798,000	5,899,000	230,366,303	7,405,300	413,300	938,000	8,082,000	28,351,001	133,613,985	.....	170,180,463	42,480,700	20,595,136	710,463,430	.....	1924
Totals	840,374,050	507,052,978	338,049,398	2,050,485,782	66,005,132	12,384,550	112,206,364	357,692,380	447,872,324	885,574,113	86,997	1,645,319,212	211,341,828	316,489,212	7,991,060,169	.....	

Arkansas 1921 10,190,000
Arkansas 1922 15,869,635
Arkansas 1923 44,488,746
Arkansas 1924 46,480,542
Total 117,028,923

[1]Includes Alaska, Michigan and Missouri production, estimated at 10,300 barrels in 1917 and 7,943 barrels in 1918. [2]Includes production of Michigan. [3]Includes production of Oklahoma. [4]Included with Kansas. [5]Estimated. [6]Includes production of Utah. [7]No. production in Tennessee recorded. [8]Includes small production in Alaska. [9]No production in Missouri; Michigan included in Ohio. [10]Includes production of Alaska, Michigan and New Mexico. [11]Includes production of Alaska and Michigan.

TIME-SAVERS and SAFETY DEVICES for Oil Country Work



1. Baash-Ross Safety Joint

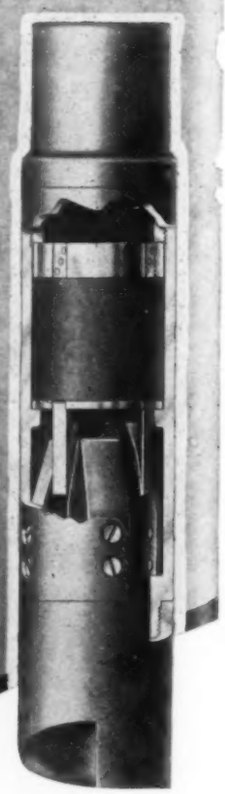
the fishing tool that will save a string of drill pipe.

2. Hosmer Tubing Head

the combination casing head, packing spider, and blow-out preventer.

3. Baash-Ross Packing Overshot

the two-in-one tool; for packing-off and overshot work.

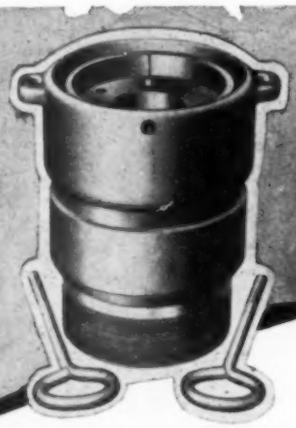


4. "H. & W." Rotary Slips

the slips with the removable liners.

5. Hosmer Blow-Out Preventer

the safety device that's better than insurance.



BAASH-ROSS TOOL COMPANY

5512 Boyle Ave., Los Angeles, Calif. P. O. Box 694, Houston, Texas
Branches: Brea, Long Beach, Torrance, Rosecrans, Calif.

Say you saw it in The Oil Weekly

California's Petroleum Production

FROM THE BEGINNING OF THE INDUSTRY TO DECEMBER 31, 1924, BY FIELDS

Compiled from data furnished by federal and state bureaus, the American Petroleum Institute, and the Independent Oil Producers Agency

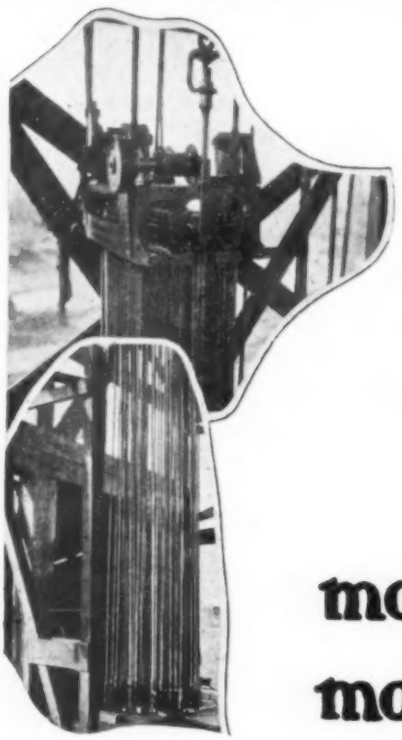
(Barrels of 42 U. S. Gallons)

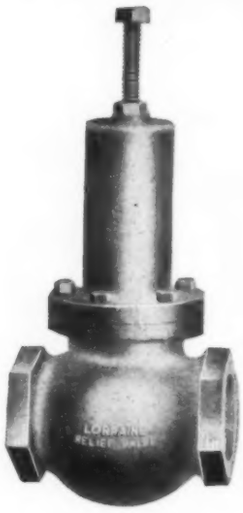
Year	Kern River	McKittrick	Midway	Sunset	Elk Hills	Coalinga	Lost Hills-Belridge	Santa Maria-Lompoc	Coyote	Montebello	Richfield	Whittier	Santa Fe Springs
Prior	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1876	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1877	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1878	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1879	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1880	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1881	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1882	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1883	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1884	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1885	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1886	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1887	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1888	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1889	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1890	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1891	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1892	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1893	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1894	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1895	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1896	.....	.....	.....	.....	.....	14,119	.....	.....	.....	.....	.....	.....	.....
1897	.....	.....	.....	.....	.....	70,140	.....	.....	.....	.....	.....	.....	.....
1898	.....	10,000	.....	.....	.....	154,000	.....	.....	.....	.....	.....	.....	.....
1899	.....	15,000	.....	.....	.....	439,372	.....	.....	.....	.....	.....	.....	.....
1900	826,775	80,000	.....	12,500	.....	547,960	.....	.....	.....	.....	.....	.....	.....
1901	3,278,840	430,450	4,235	188,600	.....	525,433	.....	.....	.....	.....	.....	.....	.....
1902	8,988,046	619,296	3,048	167,558	.....	571,233	.....	94,188	.....	.....	.....	.....	.....
1903	16,342,099	1,353,206	27,305	352,565	.....	2,138,058	.....	204,890	.....	.....	.....	.....	.....
1904	17,226,240	1,856,225	910	390,425	.....	5,097,853	.....	700,450	.....	.....	.....	.....	.....
1905	15,253,845	1,373,030	18,530	419,212	.....	8 882,125	.....	3,402 800	.....	.....	.....	.....	.....
1906	12,825,166	680,756	11,800	307,550	.....	8,401,105	.....	4 799,411	.....	.....	.....	.....	.....
1907	12,346,014	2,415,840	149,944	704,805	.....	8,996,268	.....	8,249,236	.....	.....	.....	.....	.....
1908	13,803,579	3,076,300	434,578	1,463,510	.....	10,725,795	.....	8,699,350	.....	.....	.....	.....	.....
1909	14,508,242	5,807,360	2,234,455	1,999,701	.....	15,406,619	.....	8,017,455	.....	.....	.....	.....	.....
1910	14,776,435	5,471,613	11,174,207	9 218,904	.....	18,646,570	4,900	7,607,830	.....	.....	.....	.....	.....
1911	14,078,890	5,477,532	21,584,602	5,559,069	.....	18,311,251	168,410	7,465,074	.....	.....	.....	.....	.....
1912	12,446,445	5,094,465	25,948,980	5,590,824	.....	19,546,122	2,680,961	6,801,966	1,359,303	.....	.....	747,439	.....
1913	9,980,940	4,496,842	33,040,129	5,984,651	.....	18,604,626	5,274,553	5,817,711	3,777,359	.....	.....	690,133	.....
1914	7,030,545	3,820,857	37,479,228	12 546,615	.....	15,925,887	4,830,921	4,303,080	6,998,659	.....	.....	636,789	.....
1915	8,034,974	3,552,801	33,311,486	6,006,607	.....	13,548,159	4,318,550	4,536,840	6,610,508	.....	.....	758,163	.....
1916	8,402,525	3,230,644	32,156,818	6,768,658	.....	14,381,493	4,852,431	4,422,410	8,588,699	.....	.....	1,014,667	.....
1917	8,495,610	3,252,544	29,487,812	7,072,333	.....	15,938,543	6,295,329	5,798,070	11,458,471	789,635	.....	1,156,752	.....
1918	7,921,515	3,050,627	27,439,993	6,608,940	.....	16,283,066	5,420,079	7,143,750	12,514,598	6,839,267	.....	1,046,467	.....
1919	7,563,025	2,810,848	26,133,048	5,589,885	281,019	16,385,610	4,554,821	6,030,910	10,240,359	12,100,784	965,408	1,001,048	.....
1920	7,456,515	2,607,240	25,217,420	5,423,781	7,275,809	15,464,198	4,139,767	5,928,060	8,732,435	11,124,585	2,565,346	842,184	.....
1921	6,715,680	2,056,101	24,172,350	4,613,965	18,085,425	12,340,637	3,261,281	5,563,324	7,419,050	9,065,723	8,206,962	735,376	208,216
1922	7,317,288	2,417,434	24,152,026	5,542,816	11,891,030	9,159,368	2,814,824	3,797,903	7,000,373	6,692,024	8,314,528	717,729	11,032,955
1923	6,816,134	2,191,702	27,803,281		8,174,371	5,210,839	1,843,483	3,003,672	2,447,825	4,075,669	6,121,335	645,219	79,781,275
1924	6,765,977	2,092,940	37,559,084		13,675,686	10,084,725	1,527,878	2,864,792	5,716,479	6,214,762	4,443,548	767,805	26,434,535
Total	249,201,344	69,341,653	512,078,743		59,383,340	281,801,174	51,988,188	115,253,172	92,964,118	56,902,449	30,617,127	10,759,771	117,456,981

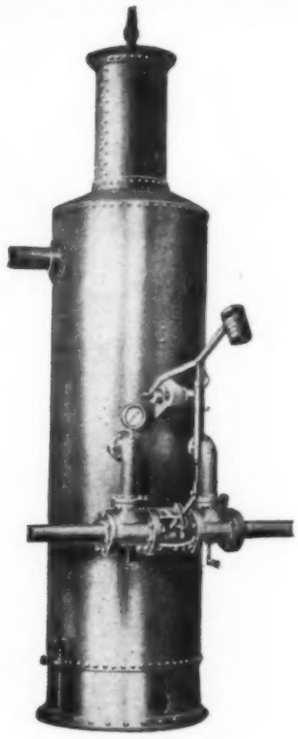
Figures for MIDWAY and SUNSET fields are Combined after 1922

Year	Huntington Beach	Fullerton	Long Beach	Summerland	Newhall and Ventura Co.	Los Angeles and Salt Lake	Torrance	Wheeler Ridge	Dominguez	Rosecrans	Inglewood	Seal Beach	Miscellaneous	Total
Prior	.....	.....	.....	.....	175,000	.....	.....	.....	.....	.....	.....	.....	.....	175,000
1876	.....	.....	.....	.....	12,000	.....	.....	.....	.....	.....	.....	.....	.....	12,000
1877	.....	.....	.....	.....	13,000	.....	.....	.....	.....	.....	.....	.....	.....	13,000
1878	.....	.....	.....	.....	15,227	.....	.....	.....	.....	.....	.....	.....	.....	15,227
1879	.....	.....	.....	.....	19,858	.....	.....	.....	.....	.....	.....	.....	.....	19,858
1880	.....	.....	.....	.....	40,552	.....	.....	.....	.....	.....	.....	.....	.....	40,552
1881	.....	.....	.....	.....	99,862	.....	.....	.....	.....	.....	.....	.....	.....	99,862
1882	.....	.....	.....	.....	128,636	.....	.....	.....	.....	.....	.....	.....	.....	128 636
1883	.....	.....	.....	.....	142,857	.....	.....	.....	.....	.....	.....	.....	.....	142,857
1884	.....	.....	.....	.....	262,000	.....	.....	.....	.....	.....	.....	.....	.....	262,000
1885	.....	Early	.....	.....	325,000	.....	.....	.....	.....	.....	.....	.....	.....	325,000
1886	.....	production	.....	.....	377,145	.....	.....	.....	.....	.....	.....	.....	.....	377,145
1887	.....	included	.....	.....	678,572	.....	.....	.....	.....	.....	.....	.....	.....	678,572
1888	.....	under	.....	.....	690,333	.....	.....	.....	.....	.....	.....	.....	.....	690,333
1889	.....	Newhall	.....	.....	303,220	.....	.....	.....	.....	.....	.....	.....	.....	303,220
1890	.....	and	.....	.....	307,360	.....	.....	.....	.....	.....	.....	.....	.....	307,360
1891	.....	Ventura	.....	.....	323,600	.....	.....	.....	.....	.....	.....	.....	.....	323,600
1892	.....	County	.....	.....	385,049	.....	.....	.....	.....	.....	.....	.....	.....	385,049
1893	.....	.....	.....	.....	470,179	.....	.....	.....	.....	.....	.....	.....	.....	470,179
1894	.....	.....	.....	1,800	570,469	196,094	.....	.....	.....	.....	.....	.....	14,715	783,078
1895	.....	.....	.....	16,904	474,624	749,695	.....	.....	.....	.....	.....	.....	4,116	1,245,339
1896	.....	.....	.....	39,792	298,866	902,868	.....	.....	.....	.....	.....	.....	2,135	1,257.780
1897	.....	12,000	.....	130,136	631,135	1,064,158	.....	.....	.....	.....	.....	.....	4,000	1,911,569
1898	.....	60,000	.....	132,217	763,871	1,126,000	.....	.....	.....	.....	.....	.....	3,000	2,249,088
1899	.....	217,599	.....	208,370	743,998	1,052,036	.....	.....	.....	.....	.....	.....	1,500	2,677,875
1900	.....	511,550	.....	183,486	628,734	1,280,000	.....	.....	.....	.....	.....	.....	248,945	4,319,950
1901	.....	753,198	.....	203,616	495,943	1,830,000	.....	.....	.....	.....	.....	.....	.....	7,710,315
1902	.....	1,103,793	.....	136,252	646,496	2,027,000	.....	.....	.....	.....	.....	.....	.....	14,356,910
1903	.....	2,305,613	.....	131,125	682,185	793,765	.....	.....	.....	.....	.....	.....	3,670	24,334,481
1904	.....	2,224,550	.....	120,506	650,779	1,241 304	.....	.....	.....	.....	.....	.....	39,392	29,548,634
1905	.....	2,118,312	.....	96,871	476,898	2,226 768	.....	.....	.....	.....	.....	.....	29,650	34,298,041
1906	.....	2,434,512	.....	72,810	404,379	2,675,650	.....	.....	.....	.....	.....	.....	10,000	32,623,229
1907	.....	3,294,206	.....	69,060	435,584	3,372,465	.....	.....	.....	.....	.....	.....	69,090	40,102,512
1908	.....	4,273.314	.....	67,862	498,015	5,138,959	.....	.....	.....	.....	.....	.....	125,475	48,306,737
1909	.....	5,157,252	.....	66,338	516,628	4,350,898	.....	.....	.....	.....	.....	.....	126,775	58 191,723
1910	.....	6,281,221	.....	74,725	652,575	3,729 618	.....	.....	.....	.....	.....	.....	58,970	77 697,568
1911	.....	7,081,165	.....	71,255	661,785	3,223 661	.....	.....	.....	.....	.....	.....	61,350	83 744,044
1912	.....	5,813,037	.....	65,715	859,885	3,073,427	.....	.....	.....	.....	.....	.....	45,870	90,074,439
1913	.....	6,189,561	.....	62,406	1,022 052	2,898,846	.....	.....	.....	.....	.....	.....	27,375	97,867,184
1914	.....	6 495,100	.....	55,743	968,421	2,504,475	.....	.....	.....	.....	.....	.....	27,375	103,623,695
1915	.....	5,661,878	.....	53,000	1,036,305	2,110,133	.....	.....	.....	.....	.....	.....	27,375	89,566,779
1916	.....	5,076,306	.....	56,775	1,122,033	1,721,483	.....	.....	.....	.....	.....	.....	27,450	91,822.362
1917	.....	4,750 582	.....	56,570	1,186 407	1,501,799	.....	.....	.....	.....	.....	.....	27 375	97,267.832
1918	.....	4,403,281	.....	54,613	1,386,518	1,397,781	.....	.....	.....	.....	.....	.....	27,375	101,637,870
1919	.....	4,350,084	.....	53,680	1,792,465	1,341,415	.....	.....	.....	.....	.....	.....	27,375	101,221,784
1920	38,116	5,391,497	.....	54 910	2,122,449	1,311,264	.....	.....	.....	.....	.....	.....	25,610	105,721,186
1921	2,518,812	6,012,839	75,588	54,155	2,375,479	1,344,926	.....	.....	.....	.....	.....	.....	24,035	114,849,924
1922	11,169,383	4,512,974	18,560,595	48,339	3,015 877	1,258,287	190,785	.....	.....	.....	.....	.....	20,338	139,626,876
1923	34,355,642	4,064,661	68,810,361	52,862	3,702,404	1,192.036	3,128,694	128,674	157,698	.....	.....	.....	21,058	263,728,895
1924	17,547,916	4,115,144	60,119,659	53,240	4,049,533	907,418	17,517,908	345,427	6,813,489	623,847	10,405	3,100	*21,006	230,366,303
Total	65,629,869	104,665,229	147,566,103	2,545,133	39,642,242	59,544,199	20,837,387	474,101	6,971,187	623,847	10,405	3,100	1,152,490	2,097,503,452

*Watsonville.







money savers are money makers

here are 3 that make "profit"

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Lorraine Automatic Gas & Oil Separator
Lorraine Relief Valve
Lorraine 2-Way Valve
The Tibbetts (Lorraine Built) Rod Rack
B & M (Lorraine Built) Stuffing Box
Lorraine Built Universal Bearing for Sand Reels

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THE LORRAINE ADJUSTABLE RELIEF VALVE serves as a check, or back-pressure valve that eliminates the annoying stuffing box and pounding and hammering that are usual. One quarter turn of the simple adjustment at the top closes the valve tightly. It is a saver of time, worry, trouble, and money.

THE TIBBETTS (Lorraine-Made) ROD RACK has a capacity of sixty stands of sucker rods, and holds them in perfect formation out of the way, easy to get at, removed from danger of injury or damage. With the additional speed that can be accomplished by the use of this rack and the saving in rods, it will pay for itself on one job, yet it is good for all time.

The Lorraine Corporation

Box 901, R. R. 3. (Phone Compton, Main 116-R)
114th and Alameda Streets, Los Angeles, California

Say you saw it in The Oil Weekly

Production of Texas by Fields

From 1895 to December 31, 1924

Year	Corsicana	Powell	Petrolia	Marion County	Wichita and Wilbarger Counties	Moran	Strawn	Coleman County	Eastland County	Stephens County	Desdemona	Brown County	Thrall	Miscellaneous
1895	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1896	1,450	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1897	63,973	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1898	544,620	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1899	668,483	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1900	829,560	5,479	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1901	763,424	37,121	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1903	401,817	100,143	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1902	571,079	46,812	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1904	374,318	129,329	65,455	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1905	312,595	131,051	101,651	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1906	336,387	675,842	111,072	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1907	276,311	596,897	83,260	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1908	211,117	398,649	82,639	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1909	180,764	383,137	113,485	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,525
1910	137,331	450,188	126,531	251,717	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,554
1911	128,526	373,055	168,965	677,689	899,579	.....	.....	.....	.....	.....	.....	.....	.....	3,656
1912	233,282	251,240	197,421	362,870	4,227,104	.....	.....	.....	.....	.....	.....	.....	.....	3,379
1913	158,830	283,476	344,868	262,392	8,131,624	.....	.....	.....	.....	.....	.....	.....	.....	4,062
1914	133,811	282,279	550,585	180,584	8,227,951	68,191	.....	.....	.....	.....	.....	.....	.....	7,074
1915	143,275	237,410	349,857	123,464	5,833,386	109,116	50,498	.....	.....	.....	.....	.....	.....	12,900
1916	135,263	215,729	302,145	64,971	7,837,386	135,608	175,147	.....	.....	.....	.....	.....	613,182	4,061
1917	131,828	196,855	282,420	57,952	9,541,636	68,118	340,950	.....	.....	.....	.....	.....	432,695	32,140
1918	*361,980	.....	297,320	.....	12,159,032	54,900	185,520	31,253	3,107,120	790,243	.....	451,002	12,000	e130,000
1919	*150,000	.....	212,624	**	30,279,108	32,500	101,300	46,590	22,379,665	10,514,216	7,375,825	213,256	8,200	235,075
1920	530,000	.....	135,385	.....	32,895,485	48,575	512,260	83,785	10,141,385	23,852,050	5,097,745	114,665	8,000	e25,000
1921	305,335	.....	132,295	.....	24,184,955	50,455	262,055	66,190	5,887,420	31,037,710	2,467,115	122,475	73,280	e24,000
1922	245,705	.....	121,295	.....	19,030,508	308,545	602,180	34,915	4,787,315	14,924,980	3,488,755	224,980	51,100	†34,010
1923	*	§	164,635	.....	18,823,394	1,426,180	402,920	48,465	3,764,085	10,062,055	2,761,735	222,655	34,210	92,796
1924	*	§	119,095	.....	†16,047,945	1,267,500	322,606	45,310	2,627,475	7,129,230	2,572,975	193,750	24,930	‡810,010
Total			4,062,961	1,981,639	198,119,093	3,569,688	2,955,435	356,509	52,787,518	98,346,703	23,764,150	1,548,823	434,484	1,538,462

	1920	1921	1922	1923	1924	Totals
Mexia-Currie	.....	4,716,805	35,120,405	20,085,395	15,614,953	75,537,560
Young County	134,895	2,820,080	3,723,305	2,351,080	598,300	9,627,660
Archer County	49,850	422,205	849,680	5,088,630	10,869,051	17,279,416
Rockdale-Minerva	.....	.....	93,600	230,462	218,439	532,501
Laredo District	.....	.....	765,000	1,591,745	1,965,215	4,321,960
Luling	.....	.....	.....	958,055	10,210,396	11,168,451
Reagan County	.....	.....	.....	.....	1,078,790	1,078,790

*Corsicana-Powell, 1924, 33,500,525. †Total for Corsicana-Powell, 79,179,370. ‡Includes Burkburnett, 7,109,190; K M A, 870,525; Iowa Park, 463,985; Wilbarger, 271,255; Electra, 7,332,990. §Includes Panhandle District, 207,030; Callahan, 90,650; Carson, 32,040; Jack County, 10,930; Mitchell County, 461,105; Scurry, 8,255.

Year	Spindle Top	Sour Lake	Batson	Saratoga	Humble	Goose Creek	Orange County	Matagorda County	Damon Mound	Hull	Barbers Hill	West Columbia	Dayton	Blue Ridge and Other Pools	San Antonio District and Somerset
1901	3,593,113	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1902	17,420,949	44,338	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1903	8,600,905	8,848,159	4,518	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1904	3,433,842	6,442,357	10,904,737	739,239	.....	.....	.....	151,936	.....	.....	.....	.....	.....	.....	.....
1905	1,600,379	3,369,012	3,790,629	2,922,215	18,066,428	.....	.....	46,470	.....	.....	.....	.....	60,294	.....	.....
1906	1,075,755	2,156,010	2,388,238	2,289,057	3,570,845	.....	.....	8,000	.....	.....	.....	.....	192,460	.....	.....
1907	1,613,513	2,354,997	2,166,554	2,198,585	2,930,842	.....	.....	4,500	.....	.....	.....	.....	120,036	.....	.....
1908	1,747,537	1,595,060	1,593,570	1,634,786	3,778,521	.....	.....	62,640	.....	.....	.....	.....	39,901	31,185	.....
1909	1,388,170	1,703,798	1,206,214	1,183,559	3,237,060	.....	.....	29,103	.....	.....	.....	.....	17,647	87,039	.....
1910	1,182,436	1,518,723	1,113,767	1,024,348	2,495,511	.....	.....	455,999	.....	.....	.....	.....	9,582	129,497	.....
1911	965,939	1,364,880	1,023,493	925,777	2,426,220	.....	.....	561,828	.....	.....	.....	.....	4,344	2,800	.....
1912	822,916	1,175,108	844,563	1,116,655	1,829,923	43,808	.....	300,000e	.....	.....	.....	.....	12,151	1,044	.....
1913	716,374	1,348,053	741,350	937,720	1,504,880	249,641	17,706	294,553	.....	.....	.....	.....	13,329	1,620	.....
1914	580,130	5,209,208	775,804	889,743	2,799,458	134,748	43,208	164,192	.....	.....	.....	.....	18,791	1,780	.....
1915	388,266	4,114,622	703,686	864,266	11,061,802	119,336	21,697	137,481	.....	.....	.....	.....	10,378	47,254	.....
1916	340,441	4,923,332	744,915	781,128	10,925,805	397,291	17,758	158,336	.....	.....	.....	.....	8,571	43,921	.....
1917	308,039	4,763,004	692,417	682,797	7,389,831	7,300,279	7,023	128,011	.....	.....	.....	.....	9,995	159,245	.....
1918	502,265	3,115,033	654,950	790,740	5,645,104	9,419,132	3,425	99,540	486,640	330,300	20,000	136,350	7,442	40,000	58,400
1919	458,680	2,740,142	502,200	616,110	3,270,617	7,288,716	4,400e	53,260	434,700	1,476,405	169,415	8,128,809	1,000	24,910	94,100
1920	323,995	2,073,485	484,035	913,735	3,692,115	5,666,390	4,000	75,775	1,259,375	4,468,615	136,375	10,563,150	1,000	*173,085	245,135
1921	321,080	1,749,625	516,225	936,695	3,098,500	5,647,020	704,870	89,405	1,353,960	8,717,970	49,885	12,573,450	30,410	*461,035	482,340
1922	295,015	1,737,685	430,265	661,870	2,552,940	5,248,065	**	34,730	945,410	6,819,135	236,185	11,631,750	38,925	*415,560	955,510
1923	309,315	2,091,961	391,857	700,661	2,449,744	6,251,761	***	39,290	822,355	7,732,139	172,660	6,598,589	74,983	332,445	§
1924	364,763	1,650,148	541,687	544,910	2,244,795	4,020,264	*	73,003	544,676	7,286,670	72,437	4,964,503	27,451	651,442**	‡1,335,490
Total	48,353,731	66,088,740	32,215,674	24,353,596	94,972,941	51,786,351		2,968,052	5,847,116	36,831,234	856,957	54,596,601	698,690	2,603,862	1,635,485

	1920	1921	1922	1923	1924	Totals
Pierce Junct.	.....	1,303,040	1,145,235	332,565	163,316	3,035,046
Nacogdoches	75,000	103,035	58,875	39,145	37,920	313,975

*Orange, 1924, 4,182,342. Total for field 14,988,682. **Includes Blue Ridge, 317,603; Richmond, 298,999; Stratton Ridge, 9,085; Hockley, 6,614; High Island, 19,141.

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UNITED STATES FIELD STATISTICS FOR 1924

Recapitulation

State—	Completions 1924	Completions 1923	Producers 1924	Producers 1923	Gas Wells 1924	Gas Wells 1923	Failures 1924	Failures 1923	Initial Production 1924	Initial Production 1923	Annual Production 1924	Annual Production 1923
Arkansas	1,512	2,000	1,262	1,553	39	110	211	337	250,815	883,336	46,480,542	44,488,746
California	1,640	1,109	1,165	845	....	....	475	264	447,979	1,291,900	230,366,303	258,387,119
Eastern States	7,687	7,279	4,671	4,552	1,666	1,208	1,350	1,519	70,431	86,965	37,982,300	40,048,140
Kansas	722	783	421	452	59	20	242	311	83,350	63,200	28,351,001	29,406,925
Louisiana	494	589	237	318	152	89	105	182	92,765	34,253	20,595,136	22,812,685
*Mountain States	1,258	....	896	....	26	....	336	....	161,010	.....	42,893,700	48,258,170
Oklahoma	4,139	4,107	2,817	2,475	301	462	1,021	1,170	1,224,930	976,590	170,180,463	155,573,392
Texas	4,261	4,656	2,842	3,252	7	3	1,142	1,401	916,931	2,519,808	133,613,985	125,991,628
Totals	21,713	20,513	14,311	13,407	2,250	1,892	5,152	5,184	3,248,211	5,920,019	710,463,430	725,057,305

*Includes Montana, Wyoming, and Colorado.

Eastern States

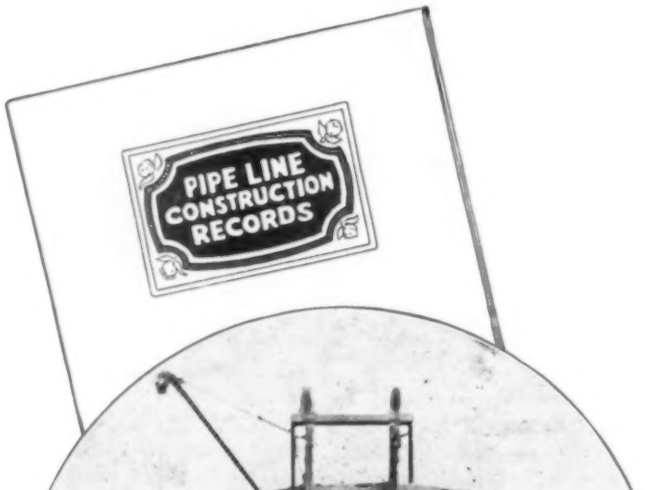
Illinois	168	266	113	150	3	21	52	95	5,086	4,748	8,082,000	8,724,000
Indiana	127	167	82	107	8	2	37	58	3,638	3,396	938,000	1,049,000
Maryland	..	27	..	19	..	1	..	7	....	1,305	.....	.....
Mississippi	11	16	4	..	..	..	7	16	106	....	.....	.....
Kentucky	1471	1863	1105	1341	36	72	330	450	27,435	39,673	7,399,300	8,102,900
New York	346	168	331	159	4	4	11	5	1,817	927	1,346,000	1,219,000
Ohio	2104	2091	1163	1311	513	322	428	458	20,867	22,375	6,798,000	7,123,000
Pennsylvania	1741	1218	1351	872	227	199	163	147	5,844	7,484	7,514,000	7,371,000
Tennessee	20	55	4	19	..	..	16	36	118	839	6,000	7,240
West Virginia	1699	1407	518	573	875	587	306	247	5,520	6,218	5,899,000	6,452,000
Virginia	..	1	..	1	..	..	..	..	....	....	.....	.....
Totals	7687	7279	4671	4552	1666	1208	1350	1519	70,431	86,965	37,982,300	40,048,140

California

Field—	Completions 1924	Completions 1923	Producers 1924	Producers 1923	Gas Wells 1924	Gas Wells 1923	Failures 1924	Failures 1923	Initial Production 1924	Initial Production 1923	Annual Production 1924	Annual Production 1923
Coalinga	42	21	12	2	..	..	30	19	760	125	10,134,725	5,198,812
Compton	1	1	1	1	..	..	..	..	1,547	1,250	.....	157,962
Coyote	3	8	3	5	..	..	..	3	2,175	720	5,716,479	2,431,363
Dominguez	47	..	30	..	..	..	17	..	41,749	.....	6,813,489	.....
Elk Hills	52	18	47	18	..	..	5	..	15,515	12,297	13,685,686	8,179,773
Fullerton	3	5	2	5	..	..	1	..	339	1,999	4,125,144	4,023,878
Huntington Beach	86	129	54	102	..	..	32	27	10,002	95,903	17,557,916	32,429,898
Kern River	10	..	10	..	..	..	..	..	268	.....	6,780,977	6,766,358
Long Beach	262	295	192	226	..	..	70	69	114,025	429,170	60 219,659	66,767,850
Salt Lake-Los Angeles	117	..	..	..	..	..	117	..	.....	.....	907,418	1,193,678
Lost Hills-Belridge	18	6	..	1	..	..	18	5	.....	10	1,527,878	1,844,780
McKittrick	11	5	2	1	..	..	9	4	50	25	2,092,940	2,127,643
Midway-Sunset	196	156	176	132	..	..	20	24	47,738	33,088	37,584,084	31,555,553
Montebello	8	9	3	5	..	..	5	4	452	758	6,214,762	4,106,401
Inglewood	2	..	1	..	..	..	1	..	165	..	10,405	.....
Richfield	13	15	6	10	..	..	7	5	1,876	2,653	4,443,548	6,135,056
Santa Fe Springs	113	291	75	249	..	..	38	42	21,562	665,811	26 449,535	75,247,659
Santa Maria	4	12	..	4	..	..	4	8	.....	110	2,874,792	2,969,074
Seal Beach	..	..	..	..	..	..	..	..	.....	.....	3,100	.....
Summerland	..	..	..	..	..	..	..	..	.....	.....	53,240	52,702
Torrance	531	61	511	61	..	..	20	..	166,145	42,679	17,527,908	2,765,223
Rosecrans	18	..	17	..	..	..	1	..	14,753	.....	628,847	.....
Ventura-Newhall	37	40	17	18	..	..	20	22	7,574	4,207	4,049,533	3,711,183
Watsonville	..	..	..	..	..	..	..	..	.....	.....	21,006	21,001
Wheeler Ridge	8	5	6	5	..	..	2	..	1,284	1,040	345,427	124,818
Whittier	2	2	..	2	..	..	2	..	.....	15	767,805	635,496
Wildcats	56	31	..	..	..	..	56	31	.....	.....	.....	.....
Totals	1,640	1,109	1,165	845	..	..	475	264	447,979	1,291,900	230,536,303	258,387,119

Louisiana

Field—	Completions 1924	Completions 1923	Producers 1924	Producers 1923	Gas Wells 1924	Gas Wells 1923	Failures 1924	Failures 1923	Initial Production 1924	Initial Production 1923	Annual Production 1924	Annual Production 1923
Anse La Butte	..	..	..	..	..	..	..	..	....	....	6,895	16,942
Bellevue	77	125	64	104	1	3	12	18	1,610	7,170	1,831,218	2,526,520
Bienville	..	2	..	..	..	..	..	2	....	....	.....	.....
Bossier Parish	..	4	..	2	..	1	..	1	....	....	.....	.....
Bull Bayou	..	10	..	4	..	6	..	..	....	275	1,813,516	2,134,591
Caddo	38	79	31	45	5	..	2	34	4,750	14,635	4,072,861	4,015,819
Cotton Valley	69	1	51	1	17	..	1	..	68,495	35	1,432,314	.....
De Soto Parish	..	2	..	..	..	1	..	1	....	....	.....	.....
Dolet Hills	..	5	..	3	..	1	..	1	....	165	.....	.....
Edgerly	8	17	8	16	..	..	..	1	3,165	2,878	164,840	176,964
Elm Grove	14	17	1	7	11	6	2	4	5	273	328,101	469,863
Evangeline	15	11	7	7	2	..	6	4	175	1,105	235,810	212,376
Haynesville	5	42	2	37	..	..	3	5	50	3,255	6,722,929	7,364,888
Homer	3	1	..	1	1	..	2	..	....	55	2,866,877	3,760,292
Lockport	1	..	1	..	..	..	..	..	3,000	....	111,232	.....
Monroe	115	113	10	45	99	56	6	12	133	716	.....	.....
Oakland	2	..	2	..	..	..	..	..	375	....	.....	.....
Sarepta	9	2	3	1	6	1	..	..	117	50	18,990	.....
Vinton	54	44	46	38	..	..	8	6	8,311	3,495	1,989,553	2,134,430
Webster	..	11	..	6	..	5	..	..	....	114	.....	.....
Wildcats	84	103	11	1	10	9	63	93	2,759	....	.....	.....
Totals	494	589	237	318	152	89	105	182	92,765	34,253	20,595,136	22,812,685



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Calion	..	79	..	59	..	3	..	17	....	18,548	.....	2,411,593
El Dorado	20	60	16	30	..	..	4	30	1,910	4,700	4,674,873	4,754,170
Irma	16	16	10	7	1	2	5	7	1,635	835	320,309	.....
Smackover	1345	1541	1185	1254	38	102	122	185	245,862	847,861	40,610,416	35,628,218
Stephens District	53	208	51	200	..	..	2	8	1,408	10,392	874,944	694,765
Wildcats	78	96	..	3	..	3	78	90	....	1,000	.....	.....
Totals	1512	2000	1262	1553	39	110	211	337	250,815	883,336	46,480,542	44,488,746

Texas

Field—	Completions		Producers		Gas Wells		Failures		Initial Production		Annual Production	
	1924	1923	1924	1923	1924	1923	1924	1923	1924	1923	1924	1923
Barbers Hill	1	14	1	5	..	..	..	9	1,000	2,505	72,437	172,660
Batson	76	20	64	16	..	..	12	4	5,885	3,890	541,687	391,857
Big Creek (Richmond)	13	7	8	2	..	..	5	5	3,827	300	298 999	17,545
Big Hill	1	1	..	1	..	..	1	..	.....	450	3,258	13 853
Blue Ridge	10	7	8	4	..	..	2	3	6,510	4,050	317 603	332,445
Brown County	40	46	28	24	..	..	12	22	700	617	193,750	222,655
Burkburnett	155	225	84	159	..	..	71	66	3,825	23,619	7,109,190	9,174,020
Callahan County	9	..	4	..	..	..	5	..	9	.....	90 650	.....
Carson County	1	..	..	..	..	..	1	..	.....	.....	32,040	7,595
Coleman County	9	7	2	3	3	1	4	3	21	25	45,310	48,465
Corsicana-Powell	262	646	198	590	..	..	64	56	161,997	1,965,185	33,500,525	32,361.150
Damon Mound	2	18	2	14	..	..	..	4	100	1 625	544,676	822,355
Dayton	..	1	..	1	..	..	..	..	.....	15	27,451	74,983
Desdemona-Gorman	47	77	34	51	..	..	13	26	940	2 896	2,572,975	2,761,735
Electra	373	501	248	368	..	..	125	133	19,914	33,549	7,332,990	8,856,089
Goose Creek	112	75	90	64	..	..	22	11	18,259	15,560	4,020,264	6,251 761
High Island	..	1	..	1	..	..	..	..	.....	1,000	19,141	19,018
Hockley	..	..	..	..	..	..	..	..	.....	.....	6 614	.....
Holliday-Archer	1413	837	942	595	..	..	471	242	151,691	95,682	10 869,051	5,088,630
Hull	144	143	112	111	..	..	32	32	90.980	157,305	7,286 670	7,732,139
Humble	4	18	2	14	..	..	2	4	4,200	6,350	2,244,795	2,449,744
Iowa Park	94	50	55	17	..	..	39	33	3,955	861	463,985	313,790
Jack County	..	..	..	..	..	..	..	..	.....	.....	10,930	16.360
K-M-A	135	17	91	7	..	..	44	10	10,633	256	874,525	479,495
Luling	93	..	91	..	..	..	2	..	150,300	.....	10 210,396	958,095
Markham	1	..	1	..	..	..	..	..	2,000	.....	69,745	39,290
Mexia-Currie-Richland	128	63	100	38	..	..	28	25	58,187	15,995	15,614,955	20,085,395
Mirando	84	95	73	93	2	..	9	2	25,320	18,050	1,965,215	1,591,745
Mitchell County	28	19	26	14	..	..	2	5	2,460	1,530	461 105	166.145
Moran-Shackelford	24	418	16	258	..	..	8	160	1,793	8,696	1,267,500	1,426,180
Nacogdoches	..	..	..	..	..	..	..	..	.....	.....	37,970	39,145
Orange	121	125	96	106	..	..	25	19	54,853	89,952	4,182,342	5,311,995
Panhandle District	20	..	17	..	..	..	3	..	2,400	.....	207 030	.....
Petrolia-Clay	35	30	12	13	..	..	23	17	158	350	119.095	164 635
Pierce Junction	4	15	1	3	..	..	3	12	500	2,045	163,316	332,565
Ranger-Eastland	155	188	92	139	..	..	63	49	5,990	13,913	2,627,475	3,754,085
Reagan	17	..	12	..	..	..	5	..	17,815	.....	1,078,790	.....
Rockdale-Minerva	..	48	..	48	..	..	..	..	.....	591	218,439	230,462
Saratoga	35	7	24	7	..	..	11	..	455	226	544 910	700,661
Somerset	..	82	..	82	..	..	..	..	.....	713	1 023 157	1.335,499
Sour Lake	49	29	31	21	..	1	19	7	1,226	3,643	1 650,148	2,091.961
Spindle Top	38	16	31	13	..	..	7	3	1,883	438	364,763	309,315
Stratton Ridge	..	..	..	..	..	..	..	..	.....	.....	9,085	.....
Stephens County	209	222	136	162	..	..	73	60	25,645	42,040	7,129,230	10,062,055
Scurry	1	..	1	..	..	..	..	..	75	.....	8 255	.....
Strawn-Palo Pinto	60	66	24	25	..	..	36	41	840	918	322 605	402 920
South Vernon-Wilbarger	6	..	5	..	..	..	1	..	5,400	.....	271,255	.....
Thrall-Williamson	..	1	..	..	..	..	..	1	.....	.....	24,930	34,210
West Columbia	24	24	19	116	..	..	5	8	16,640	2,555	4,964,503	6,598,589
Young County	9	130	8	70	..	..	1	60	52,850	7,115	598,300	2,351,080
Wharton County	2	..	..	..	..	..	2	..	.....	.....	.....	.....
Wildcats	217	366	53	97	2	1	162	268	5 695	2,788	.....	.....
Totals	4261	4656	2842	3252	7	3	1412	1401	916,931	2,519,808	133,613,985	125,991,628

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ANNOUNCING A WELCOME ADDITION TO THE FAMILY OF "PACKERS THAT PACK"

THE "OILWELL" TOOL SET CAVE PACKER

(A NEW TYPE)

"OILWELL" ESTD. 1862 TRADE MARK. (REGISTERED)

This packer is used to shut off dry caves, and requires only enough casing to cover the cave. It is attached only to the top of the casing. A well can be drilled deeper or cleaned out through this packer.

The packer is let in on drilling tools. The letting-in-tool attached to the disc in the top of the packer is threaded for 2″ tubing and is connected to the drilling tools by means of a 2″ tubing sub.

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LETTING IN TOOL

AFTER LETTING IN

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NEW YORK PITTSBURGH LOS ANGELES

SAN FRANCISCO TAMPICO LONDON

WORLD'S OLDEST AND LARGEST MANUFACTURERS OF OIL FIELD EQUIPMENT

Oklahoma Production by Fields for 1924 and 1923

Field—	1924	1923
Bristow	19,472,727	30,352,550
Burbank	30,290,796	31,698,549
Cromwell	9,525,695	.....
Cushing	9,397,011	9,883,253
Duncan-Walters	3,233,941	3,651,855
Gilcrease-Papoose	3,000,950	.....
Healdton	5,140,552	5,800,047
Hewitt	7,653,262	9,033,784
Okfuskee	.....	3,620,230
Okmulgee	8,741,674	9,882,619
Osage	14,885,445	6,103,644
Stroud	3,158,407	.....
Tonkawa	22,208,704	28,033,318
Wewoka	3,292,198	1,630,678
Other Fields	30,197,101	25,602,865
Totals	170,180,463	155,573,392

Oklahoma

County	Completions 1924	Completions 1923	Producers 1924	Producers 1923	Gas Wells 1924	Gas Wells 1923	Failures 1924	Failures 1923	Initial Production 1924	Initial Production 1923
Alfalfa	1	..	..	..	..	..	1	..	.....	.....
Beaver	..	1	..	..	..	..	..	1	.....	.....
Beckham	29	13	5	1	2	4	22	8	517	3,600
Bryan	..	1	..	..	..	..	..	1	.....	.....
Caddo	20	19	13	9	2	..	5	10	1,285	410
Canadian	1	..	..	..	..	..	1	..	.....	.....
Carter	337	199	263	152	20	20	54	27	45,353	39,253
Coal	2	..	..	..	..	..	2	..	.....	.....
Comanche	3	4	..	1	1	2	2	1	.....	60
Cotton	13	3	..	..	3	..	10	3	.....	.....
Creek	526	699	354	426	33	50	139	223	106,368	136,729
Custer	1	2	..	..	..	..	1	2	.....	.....
Dewey	1	..	..	..	..	..	1	..	.....	.....
Garfield	34	62	25	41	1	1	8	20	1,070	3,004
Garvin	17	107	11	73	1	15	5	19	578	13,092
Grady	28	80	..	9	12	41	16	30	.....	70
Grant	13	9	..	..	..	2	13	7	.....	.....
Harmon	1	2	..	..	..	..	1	2	.....	.....
Hughes	95	40	72	12	2	9	21	19	42,325	4,135
Jackson	1	1	..	..	..	..	1	1	.....	.....
Jefferson	22	4	6	..	3	..	13	4	537	.....
Johnson	1	..	..	..	..	..	1	..	.....	.....
Kay	151	405	109	318	13	33	29	54	140,931	313,701
Kingfisher	2	..	..	..	..	..	2	..	.....	.....
Kiowa	3	3	..	..	..	..	3	3	.....	.....
Lincoln	86	5	73	1	2	..	11	4	64,774	430
Logan	2	..	..	..	..	..	2	..	.....	.....
Love	3	5	..	..	..	..	3	5	.....	.....
Marshall	4	3	..	..	..	..	4	3	.....	.....
McIntosh	12	64	1	3	2	34	9	27	10	27
McClain	..	3	..	..	..	..	..	3	.....	.....
McCurtain	..	1	..	..	..	..	..	1	.....	.....
Roger Mills	5	..	..	..	..	..	5	..	.....	.....
Murray	..	1	..	..	..	..	..	7	.....	.....
Muskogee	47	70	12	17	7	10	28	43	1,715	575
Noble	91	272	66	246	5	7	20	19	27,642	156,382
Okfuskee	80	179	39	72	8	25	33	82	13,683	7,083
Oklahoma	24	..	16	..	..	..	8	..	1,942	.....
Okmulgee	316	405	144	196	32	53	140	156	17,706	17,309
Osage	1,118	804	924	588	58	59	136	157	409,442	242,405
Pawnee	109	150	76	88	4	27	29	35	18,808	6,766
Payne	23	43	10	16	2	9	11	18	1,343	842
Potawatomie	2	..	1	..	..	..	1	..	8	.....
Pontotoc	11	3	5	..	2	..	4	3	323	.....
Pushmataha	2	..	..	..	..	..	2	..	.....	.....
Seminole	388	21	344	17	17	1	27	3	305,822	12,668
Rogers	1	..	1	..	..	..	..	..	20	.....
Sequoyah	1	3	..	..	..	1	1	2	.....	.....
Stephens	141	197	70	72	25	35	46	72	1,913	5,696
Tillman	17	10	11	8	2	..	4	2	662	610
Tulsa	249	135	124	65	30	17	95	53	18,083	4,665
Wagoner	100	94	40	44	12	8	48	42	2,040	1,988
Washington	2	..	1	..	..	..	1	..	20	.....
Washita	2	2	..	..	..	..	2	2	.....	.....
Woodward	..	1	..	..	..	..	..	1	.....	.....
Totals	4,139	4,107	2,817	2,475	301	462	1,021	1,170	1,224,930	976,590

Kansas Production for 1924 and 1923 by Fields

Field—	1924	1923
Eldorado	6,120,096	6,683,552
Greenwood County	6,716,291	4,895,519
Elbing and Peabody	3,298,095	4,518,158
Fox-Bush	1,987,366	2,919,783
Florence and Covert	958,194	1,974,820
Blankenship	1,155,644	1,588,530
Augusta and Douglas	1,232,303	1,515,112
Leon and Webster	242,520	746,765
Rainbow Bend	1,199,119	.....
Other Fields	5,441,373	4,564,686
Totals	28,351,001	29,406,925

Mr. Pumper!

Of course you want to increase your production

and

You know the advantages of the tool-joint — the greatest time-saver that was ever introduced to the oil field.

now

"Columbus" Sucker Rods are being made with this tool-joint shoulder fit idea.

Accurate machining of the threads, which are centered with the rod, together with the square machined shoulder forces an even pull at all points—reducing the breakage of pins to a minimum.

Your entire string of rods is exactly like one piece.

When they snap into line—there's no weak spot in the whole length. When they lift that long, heavy column of oil—there's an even pull on every part of the whole string.

You can't see all the extremely fine features in a "Columbus" Sucker Rod—but they're there.

Write us about it—or better still order a string from your supply house.

THE COLUMBUS SUCKER ROD CO.
Columbus, Ohio.

On *time*—and exactly to specifications! That's a combination that makes money for you. And here's the organization to give it

GASOLINE—all grades
LUBRICATING OILS—all grades
Tank cars, carloads in barrels
CYLINDER STOCKS—600, 650
Steam refined and filtered
FUEL and GAS OIL—all grades
WATER WHITE KEROSENE
Gravities 40 to 47
MINERAL SEAL or 300 OIL

LOOK at our list of refineries. In addition we have our own pipe lines and tank cars. Our own telegraph lines. More than 5,000 producing wells in the country's premium crude fields. We can and do absolutely control quality—and strictly follow specifications.

THE PURE OIL COMPANY

General Offices: COLUMBUS, OHIO

Independent—and successful, through unvarying high quality in all products

Refineries at

MARCUS HOOK, PA.
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SMITH'S BLUFF, TEX.

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PITTSBURGH
WARREN, PA.
TULSA, OKLA.
CHARLESTON, W. VA.
KNOXVILLE, TENN.

Wildcatter to Hold Reins During 1925

(Continued from page 38)

Hole is now drilling around 2600 feet and still in the Red Beds. Test has encountered 17 strata of water, some of which has flowed as high as 10,000 barrels daily. Apparently the structure has been condemned for deep production by the Columbus Oil Company, (Benedum & Trees interests) which is now abandoning same on sec. 7-36-81, at 3100 feet.

Keen disappointment was felt recently when the Big Sioux Oil Company abandoned its test on the Irvine structure, eight miles southeast of Douglas, at 2741 feet. Location was in sec. 21-31-70. All three Wall Creek sands carried water. Most geologists say that this test should have been carried 1000 feet deeper to reach the Dakota series. Notches Dome was proven for oil in 1923 by the Midwest Refining Company which has never drilled but the one well since getting commercial production. This well when allowed to produce has been flowing around 400 barrels per day of black oil. Marland Oil Company recently took over several thousand acres in this structure and has started a test on a 40-acre tract in the center of the field leased from J. B. Okie of Mexico, Mexico. It is altogether probable that this field will be further proved in 1925.

On the Shoshone Indian reservation several important tests are drilling. Third attempt is now being made to prove Sheldon Dome north of Riverton. Location is in sec. 15-5n-2w with present depth of hole 2400 feet. It has had several showings of shale oil and gas. First well developed a gas flow of about 5,000,000 cubic feet and 15 barrels production in the third Wall Creek sand. Second well was drilled farther down on the structure and abandoned at 3100 feet without discovering anything worth while. Structure was regeologized and location of first well is thought to have been on the edge of the structure. New location has found the formations checking about 115 feet higher and it is now confidently expected that commercial production will be found in the present test which is being drilled by the Mack Oil Company, a closely held corporation in which Senator Pat Sullivan, National Republican Committeeman of Wyoming, is one of the principal stockholders.

Teton Petroleum Company is drilling on sec. 3-1s-2e and has reached a total depth of 107 feet. It will probably be shut down until spring.

On Muskrat structure, Wyoming Syndicate is drilling around 3400 feet with a macaroni hole. It expects production in the Dakota series at about 4000 feet.

Southern Wyoming

Most of the wildcat operations in Southern Wyoming in the past year have centered around the Little Lost Soldier district about 40 miles north from Rawlins. Beyond the discovery of gas at Bello Springs, nothing worth while has resulted. Good & Nutting are drilling on Sherard Dome, Hughes Royalty Company is drilling north of Mahoney Dome. Anna Belle-Wyoming Oil Company is drilling at Pickett Lake, and several other companies are drilling at Crook's Gap and in the Red Desert country.

In the Buffalo Basin district, Kasoming Oil Company, (Prairie subsidiary) recently took over the holdings of the Cliff Petroleum Company and has developed two gas wells at about 1200 feet, each rated with open flow of about 25,000,000 cubic feet. This company now has three other tests drilling in this district and will attempt to explore the lower sands for oil, A movement is now on foot to pipe this gas to Atlantic City, where gold mines were abandoned several years ago, because of high cost of operating from lack of fuel.

Considerable activity is being shown in the Rawlins district. Immediately west of the town two derricks are up for tests, one about two miles from the corporation limits and the other about four miles. Southwest of Rawlins, about 18 miles, the Eight Mile Lake structure was proven for gas last year and some has been piped to the Parco refinery where it is used under the stills of the Producers & Refiners Corporation. An attempt is now being made by two different companies to prove this structure for oil by drilling on the flanks of the same. Oil pro-

Kansas

County	Completions 1924	Completions 1923	Producers 1924	Producers 1923	Gas Wells 1924	Gas Wells 1923	Failures 1924	Failures 1923	Initial Production 1924	Initial Production 1923
Barber	..	1	..	..	..	..	..	1	.....	.....
Barton	3	1	..	..	..	..	3	1	.....	.....
Butler	33	159	10	73	1	1	22	85	462	4,960
Chase	7	7	..	..	..	..	7	7	.....	.....
Chautauqua	10	..	3	..	..	..	7	..	1,000	.....
Clay	2	1	..	..	..	..	2	1	.....	.....
Coffey	9	10	5	5	..	..	4	5	230	135
Cowley	136	100	76	46	20	5	40	49	31,531	2,964
Elk	67	34	20	7	27	12	20	15	1,292	340
Franklin	1	..	..	..	1	..	..	..	.....	.....
Greenwood	358	407	271	302	10	2	77	103	36,573	53,514
Harper	..	1	..	..	..	..	..	1	.....	.....
Harvey	5	2	1	1	..	..	4	1	450	200
Kingman	1	2	..	..	..	..	1	2	.....	.....
Lincoln	2	..	..	..	..	..	2	..	.....	.....
Lynch	..	1	..	1	..	..	..	..	.....	30
Lyon	13	17	1	3	..	..	12	14	5	72
Marion	14	23	7	11	..	..	7	12	1,155	945
McPhearson	..	2	..	..	..	..	..	2	.....	.....
Montgomery	17	..	14	..	..	..	3	..	8,892	.....
Morris	..	1	..	..	..	..	..	1	.....	.....
Osage	3	3	..	..	..	..	3	3	.....	.....
Osborne	1	..	..	..	..	..	1	..	.....	.....
Reno	2	2	..	..	..	..	2	2	.....	.....
Republic	1	..	..	..	..	..	1	..	.....	.....
Rice	4	..	2	..	..	..	2	..	240	.....
Russell	14	..	7	..	..	..	7	..	1,380	.....
Sedgwich	1	..	..	..	..	..	1	..	.....	.....
Sumner	8	5	..	..	..	..	8	5	.....	.....
Shawnee	1	..	..	..	..	..	1	..	.....	.....
Woodson	6	4	4	3	..	..	2	1	140	40
Trego	1	..	..	..	..	..	1	..	.....	.....
Washington	1	..	..	..	..	..	1	..	.....	.....
Wabaunsee	1	..	..	..	..	..	1	..	.....	.....
Totals	722	783	421	452	59	20	242	311	83,350	63,200

Mountain States Field Statistics for 1924

WYOMING

Baxter Basin	9	..	..	..	2	..	7	..	.....	.....
Big Muddy	4	..	3	..	..	..	1	..	350	.....
Big Horn Basin	22	..	11	..	1	..	10	..	210	.....
Carbon County	13	..	17	..	6	..	11	..	2,950	.....
Elk Basin	13	..	11	..	..	..	2	..	1,780	.....
Fremont County	21	..	12	..	..	..	9	..	385	.....
Grass Creek	11	..	9	..	..	..	2	..	1,755	.....
Lance Creek	6	..	5	..	1	..	..	..	2,550	.....
Natrona County	10	..	2	..	..	..	8	..	200	.....
Osage	57	..	45	..	..	..	12	..	1,050	.....
Rock River	16	..	11	..	..	..	5	..	1,730	.....
Salt Creek	620	..	599	..	..	..	21	..	109,430	.....
Teapot Dome	10	..	8	..	..	..	2	..	800	.....
Miscellaneous	115	..	41	..	5	..	69	..	4,830	.....
Totals	938	....	764	....	15	....	159	....	128,120	.....

MONTANA

Kevin-Sunburst	126	..	81	..	..	..	45	..	25,285	.....
Cat Creek	53	..	32	..	..	..	21	..	2,580	.....
Miscellaneous	131	..	19	..	8	..	104	..	5,025	.....
Totals	310	....	132	....	8	....	170	....	32,890	.....
North Dakota	1	..	..	..	..	..	1	..	.....	.....
Nevada	2	..	..	..	..	..	2	..	.....	.....
Utah	1	..	..	..	1	..	..	..	.....	.....
Colorado	3	..	..	..	1	..	2	..	.....	.....
New Mexico	2	..	..	..	1	..	1	..	.....	.....
Arizona	1	..	..	..	..	..	1	..	.....	.....

duction is expected in the Dakota series at about 2800 feet.

Two important tests are now starting south of Rawlins. One is on the Lake Valley anticline and the other is on the Sage Creek structure. At Sage Creek, the Marland Oil Company has taken over leases held by the Selby Oil & Gas Company and is now hauling material to location and test will be started immediately. The Dakota series is expected at about 2000 feet.

In the Medicine Bow district, Kasoming Oil Company is starting a test on Foote anticline, about six miles south of the town of Medicine Bow. Central Pipe Line Company's test at Allen Lake, five miles west of Medicine Bow, is still standing at 1400 feet. At this depth it developed about 5,000,000 cubic feet of gas along with considerable water.

Medicine Bow structure, 13 miles southwest of the town of Medicine Bow, was proven for oil in the Frontier early last year at 2020 feet. At this depth the well flowed about 200 barrels per day and filled several thousand barrels of storage. Test is being drilled by the Southwestern Petroleum Company (Hochstetter & Foreman of Buffalo) and they will probably have to abandon the hole at about 3800 feet. It was drilled deeper in the hopes of finding bigger production in the Dakota series, but lost a string of tools and a rotary was installed and also lost a bit and stem in the hole. Company has two other tests under way on this structure which should take its place as an oil field in 1925.

The deepest test in Wyoming is now being drilled by the Producers & Refiners Corporation at Simpson Ridge, about 10 miles southwest of Medicine Bow. It is now down 6300 feet with 200 feet to go to reach the Dakota series. This structure has been proven for shallow oil, the wells averaging about 20 barrels from a total depth of about 680 feet.

Rex Lake, 22 miles southwest of Laramie, is proven for oil by the Ohio Oil Company in 1924. Two other companies are now drilling on this structure, besides the Ohio. It has three producing wells capable of making a total of about 1000 barrels per day and this should become one of the important producing districts in 1925.

Southwestern Wyoming

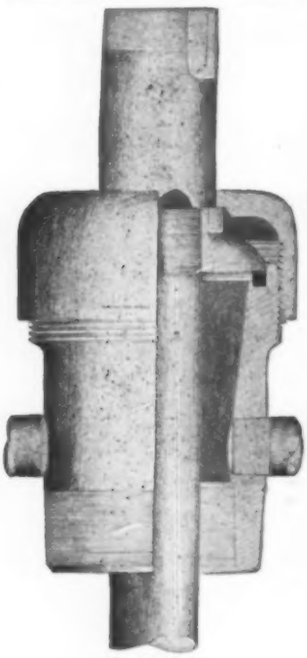
First commercial production of petroleum in Wyoming was in the southwestern part of the state when the Union Pacific Railroad brought in a small well in Uinta County, while drilling for water at one of its stations. Several shallow fields were developed and operated intermittently over a period of years but no systematic attempt was made to discover deeper sands until the past two years. About a year ago, Cretaceous Oil Company brought in a small flowing well at about 1200 feet in the Dry Piney district and the Newton interests brought in a flowing well at about 600 feet in the La Barge district, which is on the same anticline. Since then a number of companies have sent their geologists into this territory and several structures have been mapped and leased. Considerable geologizing is now being done around Kemmerer and Evanston.

Midwest Refining Company is now drilling for the account of the Utah Oil Refining Company at Dry Piney and Transcontinental Oil Company (Benedum & Trees) is also drilling in the same district. Texas, Marland, Sinclair and other important interests have lately secured holdings in Southwestern Wyoming.

Baxter Basin structure was proven for natural gas in 1923 and a pipe line was laid from the field in 1924 to Rock Springs by Producers & Refiners Corporation. Midwest Refining Company, Ohio Oil Company, Associated of California, and Producers & Refiners are all drilling on this structure, but so far have not found anything of value below the gas sands in the Frontier formation.

Montana Propects

Approximately 200 wells were completed in Montana in 1924, of which 100 were commercial producers of either oil or gas and the other 100 failures. There are now two commercial fields in the state, one is Cat Creek, five years old, and the other is Kevin-Sunburst, two years old. These two fields have produced in excess of 9,000,000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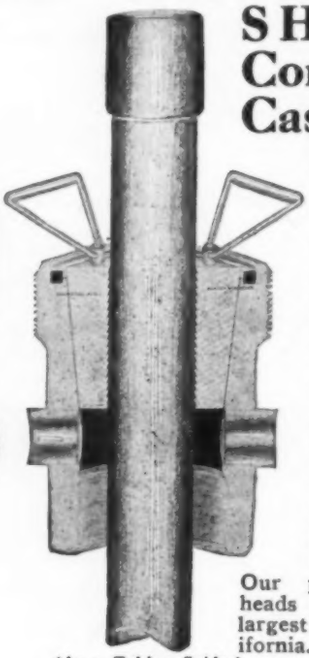
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SHAFFER Combination Casing Head and Spider

(Patents Applied For)

Only three parts to assembled head.

Tubing connection furnished threaded internally for any size of tubing thread, externally for 4" standard fittings unless ordered otherwise.

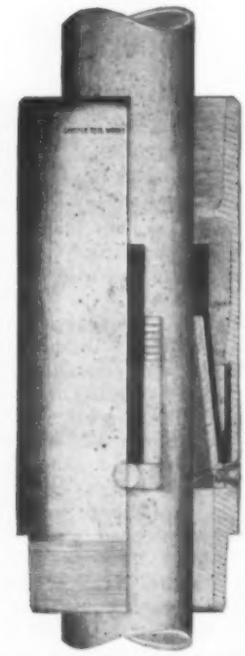
Bonnet holds tubing connection in place.

No lifting of tubing from gas pressure or temperature expansion.

Holds gas pressure of over 1,000 lbs.

Clearance in head same as corresponding size of casing, no obstruction to removal of tubing catcher or packer.

Our packing and casing heads are on some of the largest wells in Southern California.



Schmidt & Myers Packer

FOR PACKING OFF OVERSHOTS OR OTHER FISHING TOOLS IN ORDER TO GET CIRCULATION

With this tool on the washover string, circulation can be established at once in the "fish" and the quicker this is done, the better chances of getting your "fish".

Since the rubber packing and supporting slips or plates expand to pass over the tool joints and then close around the pipe, the packer can be used either above or below the overshot as desired. It increases the usefulness of the overshot as a fishing tool.

Prices and further information furnished on application.

Manufactured by

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Oil Field Specialties

BREA, CALIFORNIA

Shaffer Tool Works products for sale by supply houses generally

Why MALONEY TANKS are Different, and Better than other Bolted Steel Tanks

The Patented Crimp makes Maloney Tanks fit gastight, without caulking and the Best in their field

Note the patented crimp or off-set, the exclusive feature which has made Maloney Tanks the recognized leaders in their field.

From their inception Maloney Tanks have been the only tanks whose parts fit accurately, without the necessity of costly and tedious caulking. The patented crimp or off-set, on all Maloney Tanks, takes care of extra thicknesses where sheets overlap, and causes the seams and joints to fit with scientific exactness.

This exclusive feature saves time and money on every Maloney Tank erected.

Maloney Tanks have other exclusive features which add to their desirability and help to make them the preferred bolted steel tanks. They are constructed entirely of Keystone Copper Steel, the most enduring and most highly rust-resisting tank material made. They are designed with cleaning out plates flush with the bottoms of the tanks. Our tanks are equipped with vacuum pressure valves, thief hatches and packed-joint manholes, in accordance with specifications of purchaser.

Descriptive circular mailed at your request.

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Tulsa, U. S. A.

"Alone in Quality"

MADE OF KEYSTONE COPPER STEEL

12 to 3,000 Bbls. Capacity

Prompt, Dependable Export Service

MALONEY

Approved for Field and Refinery Service

Stanley

Solid Woven Cotton Belting

"Whoa Liz—let me down."

"Hello Jack, I gotta have a new belt QUICK."

"Fraid you're out o' luck, Mac."

"Then you better make one darned fast."

* * * *

"Here's one that's been in storage a couple of years—."

"Yeh, I know. Stiff as a board; cracks to pieces, what else you got?"

"Here's an old dirty cotton belt."

"What kind?"

"STANLEY."

"STANLEY! Boy, you just said somethin'. If I'd had that one first, I wou'dn't be shut down now."

"Looks pretty old and worn tho, Mac. She's done three or four jobs already."

'Old, nuthin'; they ain't no wear out to that belt. I been usin' them for years and I know. Throw her in. Tell the purchasing end to charge up four or five hours of rest for my gang on that belt that busted on me. Get up, Liz. So long Jack—."

THE OIL MAN'S BELT

Here's the belt that does not break at the clamp. It is so flexible you can take a thick piece and wrap it around your wrist—that's the hinge weave.

The cotton yarn is long fibre tightly twisted and specially treated. It turns off the oil and dirt. The belt has only very slight stretch—and that when new.

As for strength—one inch width in STANLEY triple stands a strain of 3300 pounds, or ten inches will hold the weight of 165 good men.

It stands storage too—keeps for years without stiffening or rotting and is just as good and strong in every way as if just freshly woven.

If you are not using STANLEY, ask your purchasing department to buy some and keep records on it as many operators have done.

There is no belt giving service in the oil fields today equal to STANLEY SOLID WOVEN BELTING.

Samples and prices on request. Quick deliveries from nearest address.

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Pacific Coast Rubber Co., 316 Mission St., San Francisco, Cal.

Mountain States Rubber Co., 1238 Broadway, Denver, Colo.

barrels. Cat Creek has 143 producing wells and the Kevin-Sunburst approximately 100 producing wells.

There are three other structures in Montana proven for oil but not commercial fields. Devil's Basin was the first structure proven for oil in the state. There are several wells on this structure which would make perhaps 25 barrels each of heavy black oil. Only one test is under way on this structure at the present time. Soap Creek in Big Horn County was proven for black oil in 1923 by the Western States Oil & Land Company, which is subsidiary of the Midwest Refining Company. It has half a dozen wells capable of producing an aggregate of about 2500 barrels per day, but the oil is of a very low grade and has no pipe line outlet.

The newest field in Montana is at Big Lake, 25 miles northwest of Billings, where the Midwest Refining Company has one well 3800 feet deep making about 80 barrels per day. This company is drilling three other tests in the same district and field should either be proven or disproven at an early date.

Some of the more important wildcat operations now under way in Montana include tests on the following structures. Porcupine Dome, Springdale, Laurel, Brush Creek, Ragged Point, Flatwillow, Shawmut, Tin Hill, Poplar, Wayne, Bowdoin Bowes, Ingomar, Willow Creek and Sweetgrass.

Apparently Montana will have a good wildcat play in 1925 but the year will be marked more especially by a more thorough development of the Kevin-Sunburst district than its wildcat work.

Work in Utah

Exploration work in Utah has resulted in proving at least one good gas field in the state. Late in 1924, Utah Oil Refining Company brought in a 90,000,000 foot well at Circo, in the northeastern part of the state. This has led to renewed interest in that section and a number of wildcat tests will be drilled in that part of the state in 1925. Ohio Oil Company abandoned a test near Coalville last year, but the Producers & Refiners is now drilling at Clay Basin on what has been proven as a closed structure. This test is now down 4000 feet without discovering anything of interest, except about 3,000,000 cubic feet of gas at a comparatively shallow depth.

Considerable work is under way in the central part of the state but nothing worth while has been discovered.

Several tests are drilling in the southwestern part of the state near Virgin, where there is a small refinery operating on crude produced in the shallow field near the town of Virgin.

Most of the wildcat activity during the past year in Utah has been in the southeastern part of the state where a half dozen deep tests have been drilling mostly by the so-called independent interests, although Midwest Refining Company is interested in a deep test in that section of the state.

After spending several hundred thousand dollars each, apparently the Ohio Oil Company and The Texas Company, have withdrawn from further operations in Utah.

Colorado

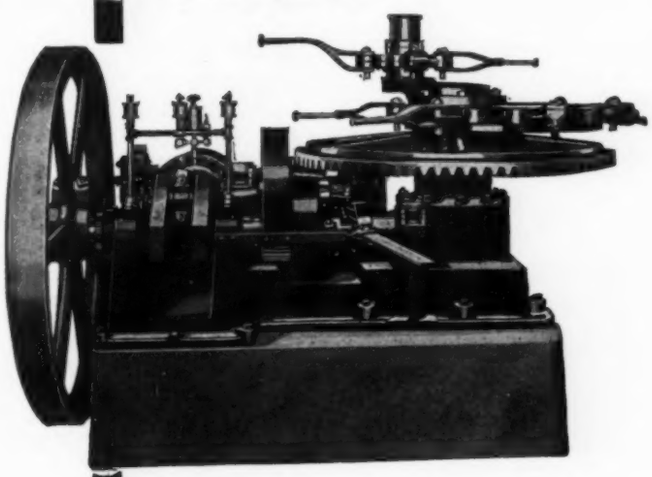
Colorado has had a big wildcat program in 1924. At the close of the year, approximately 50 wildcat tests were drilling in the state. Two districts were proven for oil, one at Craig and one at Fort Collins in 1924, and several were proven for gas. Gas in commercial quantities was discovered in Delta County, in Routt County and at Wray in the eastern part of the state.

At the close of the year Moffat Dome near Craig still had only one producing well, approximately a year old and still making 1100 barrels per day. It should soon have another completion which will largely determine the value of this structure.

In northeastern Colorado, Union Oil Company has proved the Wellington and Fort Collins domes for both oil and gas. One well in this district is now pinched in and allowed to produce 700 barrels daily.

The last week in the year 1924, The Texas Company tapped a pocket of shale oil on Tow Creek structure between Steamboat Springs and Craig, which shot oil over the top of the der-

Patent applied for



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Important wildcat tests in Colorado are being drilled near Berthoud, Longmont, Boulder, Meeker, Rangley, Pueblo and Denver. It would not be surprising if this state should add one or more new fields in 1925.

New Mexico

Approximately 35 tests are under way in New Mexico at the beginning of 1925. Two fields have been proven for commercial production in this state in 1924. Hogback structure is controlled by Midwest interests and is producing around 2000 barrels per day. Rattlesnake Dome has been proven by the Munoz interests in which the Mutual Oil Company recently obtained a half interest. This company is now laying a short pipe line from the field to Farmington, where it is building a very up-to-date and complete refinery although with a small charging capacity.

Probably the most important development in New Mexico in the past year was near Artesia in the eastern part of the state where Illinois Syndicate is reported to have brought in a 200-barrel well. This part of the state seems to be full of some very good structures which will get a good play in 1925.

Ohio Oil Company has recently invaded New Mexico and is drilling in Eddy County. Union of California, The Texas Company, Sinclair interests, Gulf interests, Transcontinental and Producers & Refiners have all become interested in New Mexico within the past year.

Other States

Considerable exploration work is under way at the beginning of 1925 in Arizona, Nevada, Idaho, North and South Dakota and Western Nebraska. So far nothing of value, with perhaps the exception of a little gas in Idaho and South Dakota, has been discovered in these states, but it would not be at all surprising if the country east of the Black Hills might not develop something worth while in 1925. This section has been receiving considerable attention from the geologists of late and is due for thorough testing before the year closes.

No Let-Up Seen in Texas Wildcatting

By H. H. King
Staff Representative

Three widely scattered sections of the north half of Texas will receive the major attention of wildcat operators during 1925, with the most intensive drilling scheduled for the Balcones-Mexia Fault region in the eastern part of the state. The search for additional semi-shallow oil producing areas in the Wichita Falls, or north Texas district, will be carried further to the west and southwest during the coming year, while the development of one big field on the Marathon Fold in Reagan County is encouraging the renewal of wildcat operations in west Texas. The demand for high gravity crude and posted prices during 1925 will probably control the volume of exploration work conducted in these three wildcat districts, and wildcat drilling campaigns proposed for 1925 are commensurate to a favorable crude market situation throughout the year.

The demand for wildcat lease protection in the Balcones-Mexia Fault zone, north Texas district and Marathon Fold sections of the state is steadily increasing, and wildcat drilling blocks are no longer available for a test without the payment of a bonus for the exploration privileges, while fee land owners quite frequently realize more from a mineral lease than the surface of the land is worth. The possibilities of new discoveries of oil and gas production in these three sections of the state are accepted by the oil companies as justification of the payment of cash bonuses for leases to drill on, as well as for general lease protection.

The semi-shallow horizons in the north Texas district will receive a greater number of wildcat tests than the combined total drilled during 1925 in the balance of the north half of the state by reason of the small costs involved in drilling, but this wildcatting does not offer a threat to the general crude market that exists in the Balcones-Mexia Fault zone and the Marathon Fold region. The latter two districts offer a producing horizon around the 3000-foot level in Woodbine sand and sandy-lime, respectively, that furnishes big flush production in sufficient quantities to become a factor in the crude market, while the semi-shallow sands in the North Texas district have heretofore proven to be mostly a pumping proposition from the beginning, with the exception of the Burkburnett field. Wildcat drilling blocks in likely flush producing areas are the most popular, but drilling costs are invariably higher, and for that reason the number of tests drilled in search of oil and gas are held in check.

Balcones Fault

The Balcones-Mexia Fault zone extending northeast and southwest of the present series of fields making up the Mexia-Corsicana district in East Central Texas will be explored for new fields in a systematic manner during 1925, while the wildcat play will also be conducted on the undeveloped acreage lying between present fields on the fault. The spectacular performance of the Corsicana-Powell field, followed by the discovery of a small but prolific area at Richland, and the more recent strike at Wortham have greatly encouraged wildcatting in the fault zone, and millions of dollars have been expended for leases and drilling in trying to uncover new producing structures since the discovery of the first field at Mexia. The trend of production, if any exists, to the northeast and southwest of the present groups of fields has been narrowed down to a comparatively small strip by previous wildcat drilling, and the costs of leases have soared to extremely high prices in the areas considered favorable for production. High lease costs are gradually eliminating the small wildcatters, and the major companies will do the most drilling, as was the case during 1924, although the individual wildcatters are the most active as a general rule over the state.

The search for new fields in the fault zone will extend from the south end of the Mexia field via the short lived Kosse field and beyond Milam County, while leases are being taken at fancy prices in anticipation of a field shortening the interval of undeveloped acreage between the Richland and Corsicana-Powell fields. A stretch of land extending north from the Corsicana-Powell field near the town of Powell towards the town of Bazette, Navarro County, probably offers the greatest threat to the crude market than any particular section of the fault zone, as previous wildcat drilling has revealed that a structure does exist in this area, and fewer tests will be required to condemn or prove the existence of a producing structure by reason of the exploration work already completed. The presence of a commercial gas well in the Woodbine sand on the East Bazette block of the Humphreys-Boyd Oil Company, and traces of oil and gas obtained from a test drilled in 1923 on the Reid farm, John Millican survey, are two factors lending favor to this area. Lease and royalty buyers have taken up practically every available acre of land in anticipation of a field, and drilling will be started on several tentative locations as soon as rigs can be spared at Wortham.

Powell-Bazette

Beyond the so-called Powell-Bazette structure, the opinion of geologists and wildcatters varies as to the trend of the fault, and some are playing for the fault to take a more easterly course across Henderson County into Van Zandt County and beyond, while others are actively buying acreage in a northerly direction passing across the eastern part of Kaufman County into Hunt County. The Kaufman-Hunt County trend is at present the most popular,

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and geological opinions are being supported by actual drilling. Kaufman County has scored more deep dry holes than any other single county in the fault zone extending northeast of the Corsicana-Powell field, and it is the information furnished by these failures through the correlation of logs of wells that is responsible for the renewed activity. The wildcat play being given Hunt County is also largely due to information gained through logs of previous failures. An active wildcat campaign is scheduled for the Bazette district in Navarro County, and the east halves of Kaufman and Hunt Counties during 1925, while scattered drilling will take place in other counties adjoining on the east.

Four counties forming a square—Archer, Young, Throckmorton and Baylor Counties together with Wilbarger County, will experience wide-spread drilling operations on wildcat locations throughout 1925, and the semi-shallow sands underlying these counties will undoubtedly furnish new fields for the North Texas district. Archer County has paved the way for this proposed wildcat campaign by reason of the discovery of a series of small but productive pools during the past two years in sections of the county that had been previously partially condemned by failures. Modern drilling equipment together with more efficient workmanship has placed Archer County at the head of all producing counties in the North Texas district during the past year, and the success obtained by wildcatters in opening new fields from comparatively thin oil sands in the county has resulted in similar types of fields being discovered across the county line in upper Young County, while considerable wildcat encouragement has been offered by showings of oil and gas production in semi-shallow sands in Throckmorton and Baylor Counties. Throckmorton County has also lately been proven for deep production in the lime pay, and this horizon will be explored over a wide area in 1925. Indications are that the wildcat campaign scheduled for 1925 will eventually result in an almost continuous chain of semi-shallow fields between Wichita and Shackelford County.

Wilbarger County has been mapped for a heavy volume of wildcat activity during 1925, and the discovery of the South Vernon field last year in the west central part of the County overrules the old opinion that Wichita County's famous semi-shallow sands terminate on the east edge of Wilbarger County. Wilbarger County has experienced the same fate as Archer County, and that is it was explored for oil in a haphazard way after the discovery of Burkburnett, with no attention being paid to oil bearing sands that did not show for commercial wells when first tapped. Both Archer and Wilbarger were explored for big flush production similar to that found at Burkburnett, and the re-drilling of Archer County during the past two years has revealed that commercial wells can be made from sands that showed traces of oil when first tested years ago. Logs and members of drilling crews on old wildcat failures in Wilbarger County are now being consulted for information regarding oil bearing sands passed through, and favorable reports are being followed by the starting of a nearby wildcat offset.

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Montague and Cooke

The upper part of Montague and Cooke Counties are in line for considerable wildcat activity on the east edge of the so-called North Texas district, and attractive shallow sands have already been proven for low gravity oil and dry gas production in the former county. Cooke County scored its first well from a 3500-foot sand in 1924, and the performance of this well will undoubtedly encourage additional tests in 1925. The major companies of Texas and many Oklahoma operators have acquired lease protection in the general vicinity of the Cooke County discovery well, but are not starting developments. The discovery well and all acreage held by its owners were thrown in litigation recently, and this will necessarily delay drilling of offsets.

In the Panhandle

The Panhandle district of Texas does not offer the favorable outlook for wildcat drilling that has prevailed at the beginning of previous years, as only comparatively small oil producers have been completed to date in the wide area tested in upper Carson and lower

Hutchinson Counties, and great expense is involved in operating the pumping wells when brought in. Gray and Wheeler Counties, located to the east and southeast of the present established oil field, will furnish most of the wildcat activity during 1925, and the recent discovery of a semi-shallow oil well in Wheeler County will add to the interest of wildcatters, as this is the first oil well for the county. The Carson-Hutchinson County oil field covers an enormous area, and has obtained an outlet for all oil produced, but the price obtained for the crude is not in keeping with the costs involved in drilling wells. The Panhandle district can be classed as a huge reserve supply of both oil and gas awaiting the drill, and those who control the productive acreage are holding it for such. Major companies hold the bulk of the acreage, and are paying rentals promptly in anticipation of a bright future for the Panhandle district some years hence.

The discovery of the Big Lake field, Reagan County, in May, 1923, established oil and gas production on the so-called Marathon Fold, and the results of the partial development of the field has brought this section of West Texas again in favor of the wildcatters. The Big Lake field is held by two companies operating a 64-square-mile lease-hold jointly, and for this reason all other companies and operators interested in the new producing area have been forced to wildcat for production. The wildcat activity spread out in all directions from the field into adjoining counties during the last half of 1924, and a continued search for new fields will be conducted during 1925. Reagan County is proving the most popular for exploration, while the play is shifting to the southwest in Crockett, Pecos and Terrell Counties. Irion County, located on the east of Reagan County, is to be tested in a general way during 1925, while wildcat drilling will take place on recently acquired blocks in Glasscock and Sterling Counties. Both Garza and Kent Counties are also credited with having favorable geological indications that will result in a few wildcats being drilled during 1925, while Garza County scored a small oil pumper below 2000 feet during the latter part of 1924.

The discovery of any new fields in West Texas will likely be followed by prompt development, as Humble Pipe Line Company is preparing to extend a trunk line to the Big Lake field, and will also serve other fields, thereby making it possible for West Texas to be a factor in the general crude market situation. The Big Lake field has been retarded in developments, owing to limited facilities for handling the oil when produced, but the completion of the Humble line late this year will remove all restrictions on drilling.

Rio Grande Plain Not to Be Slighted

By Grady Triplett
Staff Representative

Despite the obstacles it offers prospecting and the relatively low production of the district, the Rio Grande Plain promises to draw increasing attention from the wildcatter in 1925.

Drawbacks to drilling in this area come from two sources. Lack of transportation over the greater part of the district prevents easy movement of equipment and supplies. This makes drilling both slow and expensive. Then the formations are such that geological study is hindered, so data upon which to choose locations is meager.

The Rio Grande Plain has its southern line on the Rio Grande river. Its west line begins in the lowest part of Uvalde County, Texas, and runs southeasterly to the river. The north line begins in Uvalde County and bears southeasterly through Dimmit, Webb, Jim Hogg, Brooks and Kennedy Counties, reaching the Gulf of Mexico below Baffin's bay. The east line is the coast of Texas, between Baffin's bay and the mouth of the Rio Grande.

Its oil fields bear relation to the oil fields, producing gas fields, numerous showings of gas and frequent showings of oil. It is these facts, which draw the attention the district is having from a wildcat standpoint.

It's oil fields bear relation to the Reynosa escarpment, which is found at the surface 35 miles east of Laredo. The Schott pool, just south of the town of Mirando in Webb County, the Aviators pool, also in Webb County, the Mirando pool, in the northwest corner of Zapata County, all are at the base of the Reynosa escarpment, while the more recent development in Jim Hogg County is near if not on this district.

Gas fields and shallow oil have been found west of the escarpment.

Oil from the first three of the fields above comes from the Cook Mountain formation, found in the Mirando pool at 1450 feet. It is a sandstone having thin ledges of lime rock. This formation is of the Eocene series.

The beds, which lie above the Cretaceous age, are deposited unconformably over the Rio Grande Plain, something that makes mapping difficult. Synclines and anticlines are known to exist in these beds, however, these being the structures found over the greater part of the area.

Students of the district believe salt domes are near the coast line. One of the largest domes along the Texas coast is near Falfurrias, being described as five miles long and from one mile to one and one-half miles wide. Drilling has been done there without success so far as striking oil is concerned. Other surface elevations within the district are thought to be the result of salt domes.

Since the advent of the seismograph and the torsion balance for determining the existence of salt domes has been successful in the Texas Coastal Plain belt, it is certain that these devices will be carried into that part of the coast to assist in prospecting.

The Cretaceous beds, underlying those of Tertiary age, are within reach of the drill over most of the Rio Grande Plain. So far, however, no oil has been found in these beds. Some gas has been found in the Cretaceous formations.

Coastal Plain

Success of the seismograph and the torsion balance in determining the existence of salt domes has transformed wildcatting in the Coastal Plain into a dual system. First these instruments will be used to establish facts which indicate the presence of domes. Then drilling will follow, first to prove the dome, then to seek oil-bearing formations at the flank of the domes.

The coming of these instruments will not lessen drilling. But it seems that for the immediate future, drilling will be done chiefly where instrument work indicates the existence of domes.

Just now chief stress is on the use of the instruments already successful in determining the underground positions of uplifted cap rock. No section of the Texas Coastal Plain will be overlooked in the use of these instruments in 1925. The Louisiana coastal sections also will be covered in like manner. Under these conditions it is impossible to define any one part of this whole district as having possibilities brighter than surrounding territory.

Fort Bend, Brazoria and Wharton Counties are being thoroughly tested at present, both with scientific instruments for new domes and by drilling where domes previously have been found, through use of the instruments and test wells drilled immediately afterward. The Gulf interests have drilling under way at Orchard and Long Point, two domes found by scientific instruments. Both these are in Fort Bend County.

The Rycade is drilling at the Wisdom dome, which was tested by the instrument, although other methods led geologists to look with favor on the district.

The Boling Dome, established by the Gulf through drilling, was credited to Wharton County. Now, however, the opinion is that this dome extends across the line dividing this county from Fort Bend and part of it is in this latter county.

During 1925, the seismograph and the torsion balance should come into wider use in the Coastal Plain. Control of the instruments has restricted their use in the past. But machines of American make are sure to come into the field shortly. When this happens, this part of wildcatting in the Coastal Plain will become general.

San Antonio Area

That part of the Balcones fault zone around San Antonio is to be further

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tested, especially the formations of the lower Cretaceous beds.

The fact that production in the Luling field comes from one of these beds, the Edwards limestone, is responsible for continued efforts to find other places where structure exists and the formation is oil-bearing. It may be well to record here that the Luling field is proving a field of higher output than was at first calculated. Engineers at first looked on it as a field, whose total output might not exceed 15,000,000 barrels. But in 1924 Luling produced in excess of 10,000,000 barrels. So its ultimate yield may be several times these first estimates.

While Luling is not the only instance of oil producing from the lower Cretaceous in Texas, it is the first deposit of importance from these strata in the state. Shallow oil in the South Bosque field of McLennan County is credited to the lower Cretaceous. Both gas and oil have been found in the lower Cretaceous in Panola County, East Texas. The Jones well near Kosse, in Limestone County, a freak well in that it was short-lived, is thought to have found oil in the Edwards limestone, which produces at Luling.

So the wildcat campaign, so far as it adheres to the fault region around San Antonio, will be an effort to drill into oil-bearing formations of the Edwards limestone in places where the downthrow of the fault is to the northwest. With natural dip to the southeast, faulted downthrow to the northwest, creates structure that will trap oil.

While oil at Luling comes from the Edwards formation, it is possible that other beds of the lower Cretaceous series are oil-bearing. In fact, the oil and gas of Panola County has not been identified with the Edwards.

In the lower Cretaceous series are found the Buda, the Del Rio and the Georgetown above the Edwards. Immediately below the Edwards is the Comanche Peak, followed by the Walnut and Glenrose formations. Deep drilling has established the lower Cretaceous series to be more than 2,000 feet thick. They are found below 1,000 feet around Luling and drilled through at 3,400 feet. These depths, of course, will vary at points removed from Luling.

The chief drawback to wildcatting along the Balcones fault in the San Antonio is the difficulty of drilling. Hard formations are numerous, requiring much use of bits for penetrating rock.

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Deep Sands to be Oklohoma Objective

By W. Lee Sloan

Staff Representative

With the rapid decline in the daily average production of the different fields in the State of Oklahoma, the prospects for a wide-spread drilling campaign in wildcat territory is now passing the precedent heretofore set.

Although the Wortham, Texas, field is now attracting the attention of Oklahoma operators, the firm belief that this factor will be greatly depleted by the coming of the spring months has prompted the major companies to purchase large blocks of acreage in all parts of this state.

After a thorough canvas of competent operators in Oklahoma, in which an opinion as to the most likely looking wildcat territory was asked, the conclusion gives a result of diversified opinions. It seems that in the opinion of these operators, there is very little territory in the state which will be left out of the "play" for the current year, and to select five counties in which the prospects seem to favor is almost as difficult as picking an All American football team. However, after a compilation of these opinions, Pawnee, Lincoln, Pottawatomie, Pontotoc, and Logan Counties received the greatest majority.

There are many counties in the state, like Seminole for instance, in which there is an abundance of undeveloped territory, but in the selection of the counties where the wildcat "play" will possibly reach the highest pitch, such counties have been disregarded on account of the wide-spread development now going on.

The selection of Pawnee County to head the list of counties has been prompted by the recent development in the Wilcox sand in the Otoe pool and the completion of Donohoe and others in section 22-23-4.

The Donohoe well was completed about the middle of December, 1924,

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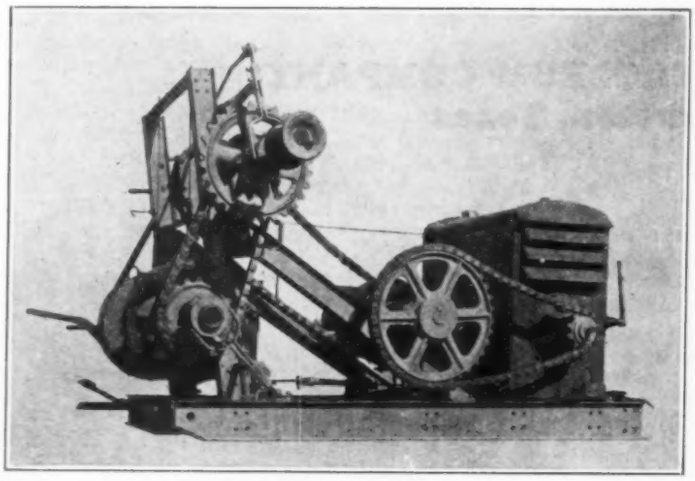

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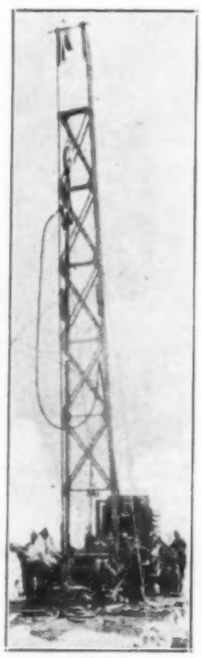

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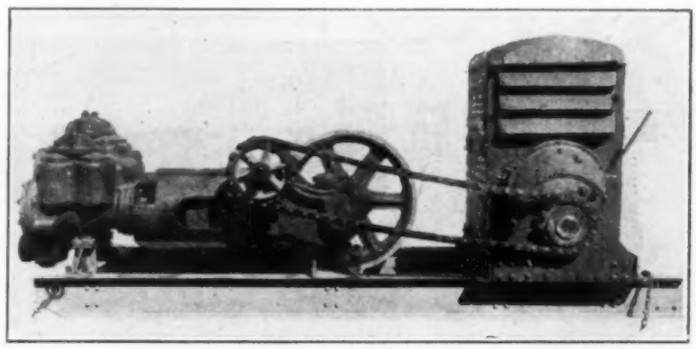

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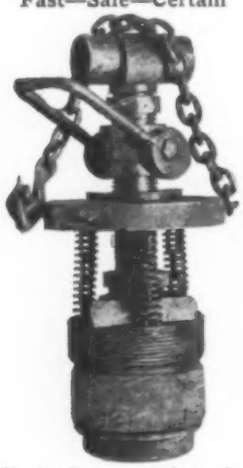

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from the Wilcox sand at a depth of 3717 feet and the production at the present time is 170 barrels per day, establishing the fact that the Wilcox sand is the best pay found in the territory lying between the Tonkawa field and Pawnee, through the Otoe reservation.

The old Otoe gas field is located nine miles north of the town of Morrison in Pawnee County. For many years the production of gas in this field was the source of supply for nearby towns, but it was not until the Watchorn Oil and Gas Company started a test from the 1800 foot gas sand to a probable oil sand below, that operators turned their attentions to this area. The result of this test was a 450 barrels well on the famous 101 Ranch of the Miller Brothers. After deepening, this same well made 1500 barrels from five additional feet in the sand. A little later on, No. 5 Diamond Miller hit the deep sand and made 2400 barrels per day at its inception.

By carefully surveying the lease map of Oklahoma, it can be readily seen that few major companies are not extensively represented in these five counties. The development on these large blocks depends almost entirely upon the future of Wortham and the showings made by the present producing field in Oklahoma.

Kansas May Have Several Surprises

By Warren Baker
Staff Representative

New producing areas developed in Kansas during the latter part of 1924 justify the prediction that prospective acreage extending from these centers will see no small amount of exploitation within the coming months. And while operators in the Sunflower State will concentrate their efforts on these sections, the more outlying districts are not to be neglected.

In fact, if present drilling campaigns can be used as a basis for estimating future activity, Kansas is slated for one of the most active years since it was relegated into the background sometime ago by Oklahoma and Texas. A firmer crude market with better weather conditions are all that is necessary to start intensive drilling.

In forecasting wildcat prospects for 1925 the three individual conditions existing in the state, all of which have their individual attraction, make it advisable to divide the state into three groups: The central south, the southeastern and the western. The central south group is made up of Cowley, Sedgwick and Sumner Counties. While the southeastern group takes in Wilson, Labette and Neosho Counties. Russell and Barton Counties will compose the western group.

The central south group will probably receive the most attention. Cowley is the principal county of this group with its Rainbow Bend, Graham, Winfield, Eastman and Slick-Carson pools. Especial attention will be given to the territory lying in the half moon formed by the Rainbow Bend, Graham and Slick-Carson pools. The Rainbow Bend area lies five miles south of the Slick-Carson field, while the Graham field is three miles south and two miles east of the Slick-Carson development. Drilling in this locality will extend into Sumner County, but will probably be shut off from Sedgwick County by Hess and others' dry hole, two miles north of the Carter test in section 19-32-3, Slick-Carson pool. This well was abandoned below the Wilcox horizon.

To the south of the Rainbow Bend field lies the famous Oklahoma producer, Burbank. The Burbank and Rainbow Bend fields find the productive sands at about the same depth, the 3,000-foot sand, and many geologists maintain that the sands are the same. For this reason the territory lying between the two fields will be the scene of much activity. Much land has already been leased in this section and some drilling has been done, but few wells were ever taken as deep as the Burbank sand.

The area lying between the Slick-Carson, Graham, Rainbow Bend and Winfield pools is also interesting with these fields having producers showing an initial production of as much as 1000 barrels.

A large leasing campaign is featuring Sedgwick County, and some large operators have elected to checkerboard the county for protection on a possible trend of production running northward from the Cowley County fields. A good showing of oil has been found near Clearwater, but it has not been determined whether or not it is of commercial value.

Sumner County will receive a large play from the Cowley County operators. To the south of it lies the Kay County, Oklahoma, fields, and no doubt their operations will spread into this county. The Slick-Carson pool is just across the boundary in Cowley County. One of the most promising fields is found in Sumner County, the Padgett gas field, located in section 34-2. This field is again taking on life, after a short slump. Several rigs are up and several more drilling. The Padgett gasser is furnishing the neighboring rigs with gas for drilling purposes.

One of the advantages of drilling in Wilson, Labette and Neosho Counties is the small cost. The holes are generally started with a 12½-inch bit and with an exception of one string of eight-inch pipe set to the first formation of lime, only one string of casing is necessary to complete a well. This casing, generally a six-inch string is set to the top of the sand after a showing is evident. Drilling machines are the most common rigs used.

The western group is strictly wildcat territory in every sense of the word, and very little can be definitely said about it. This group is composed of two counties—Russell and Barton. The production attained in the Oswald pool of Russell County will be the prime factor in future drilling in this locality. The Oswald pool is doing close to 1,000 barrels of oil a day. This pool has caused around fifty wildcat tests to be drilled during the past year, the majority of which were abandoned before they reached the Oswald sand. Only one well outside of the Oswald pool was ever completed as a producer of commercial value. This well was the White Eagle Oil and Refining Company's No. 1, Dodge, three miles north of the pool, in section 29-11-15.

Practically every well drilled had a nice showing of oil, but failed to find it in large enough quantities to indicate commercial possibilities. The impression persists that deeper drilling will eventually bring the desired results.

The weather plays an important part in drilling activities of the county, often making it impossible for continued activity in drilling. The play of Russell County is expected to spread southward into Barton County, where the Roxana Petroleum Company is drilling a well in section 22-18-13. This well has had two oil showings, the first at 3324 feet and the second at 3470 feet and a gas showing at 3500 feet.

California to Duplicate Past Year

By W. E. Green
Staff Representative

During January, 1924, there were a total of 53 wildcat wells drilling in the state of California, against 39 wildcats the year previous. During the month of October, there were 101 wildcats drilling in the state, dropping back to 100 even in November. These figures are taken from statistics compiled by the American Petroleum Institute. There were 93 new rigs erected in California in 11 months last year against 72 during the full year of 1923.

At the close of the year the Union Oil Company was blocking up a large acreage taking in Ocean Park Heights, near the Pacific, and between Los Angeles and the Ocean. It is expected that the Union will start a wildcat in this area early in the year.

The Union also has secured a lease on the Olinda Land Company property adjoining the old Olinda field to the southeast and will start a wildcat test in the near future. This tract is close to 1500 acres.

Tests Near La Mirada

In Orange County, at La Mirada, the Associated is drilling a deep test, having reached a total depth of 6018 feet and is now standing cemented. In this same district the Scientific Oil Company is drilling a wildcat and has been trying to test at 4214 feet. The Shell Company is preparing to drill another test in this area.

At Arcadia in Los Angeles County, the Vosberg wildcat is testing at 3930

feet to test the 4879 foot hole, but it does not look very good. At Bandini in the same county, the Oakridge Oil Company spent more than $1,000,000 drilling on four wells, without result and the last hole has been abandoned. Showing in the first test, which could never be made to produce, caused such a large expenditure.

Show at Bixby Hills

In Bixby Hills, National Security Company's test had a small showing of oil and is now at 5160 feet and standing. The Shell Company is drilling a test on the Virginia County Club grounds just northwest of Signal Hill and has reached a depth close to 4400 feet without any showing of record. The Marland Oil Company of California has started a new wildcat near Davidson City about midway between Signal Hill and Dominguez Hill.

The ditch has looked good several times at the wildcat being drilled by the Winwell Oil Company near Hawthorne, but very little encouragement is held out. The hole has reached a total depth of 4965 feet. One other test is drilling in this area.

Just a Little Oil

Just enough oil has been found in wildcats drilling in the San Jose Hills near Puente to make the operators keep on drilling. Three tests are now underway in this section, the deepest one being 4100 feet.

The well drilling near Van Nuys across the mountains to the north from Hollywood reported showings of both oil and gas last fall, but the production has not yet been secured.

A number of tests are drilling in various sections of San Bernardino County. The Hesperia well near Victorville in the desert has attracted the most attention in recent weeks, due to frequent reports that it was showing oil and gas.

Activity to Continue

Well posted men expect wildcat drilling to be as active in 1925 as in 1924, which was the best wildcat year the state has ever known, although the results were not satisfactory and lots of money was spent. The wildcat activity will be divided about equally between the north part of the state and the Los Angeles Basin. Several points in Southern California where indications looked good early in the year, tests have found the formations to be barren.

Most of the wildcat operations in California are by the major companies.

Many Tests Planned For Eastern States

By Geo. A. Whitney
Staff Representative

That the wildcatter will have his inning during the current year is evidenced by the fact that at the present time there are close around one hundred tests under way in the fields east of the Mississippi river. This combines the fields of the North as well as the South, although the greatest number of rank wildcat ventures are located in the southern fields. The most active campaign will be carried on in Mississippi, Alabama, Georgia, Tennessee and Eastern Kentucky. Two wildcat ventures are under way in the southern portion of Michigan, where the companies doing the work look for something worth while in the deep Trenton limestone, which is the source of the oil and gas found in the Northwestern Ohio, Eastern Indiana, in parts of Illinois and Central Ohio. There is at present but one commercial well within the borders of Michigan, and that is some few miles across the Ohio state line, in Dundee township, Monroe County, and to the southwest of Detroit. Several additional wells on the wildcat order are being planned for the summer season, in Jackson, Monroe, Lenawee Counties and along the borders of Lake Michigan, in the vicinity of Manistee.

During the past few months reports from both North and South Carolina are that acreage has been leased up for the drilling of test wells to determine whether or not oil is to be found in those states. Maryland is another interesting area and will get its tests. Virginia is another likely spot, especially in the western portion which adjoins West Virginia, Kentucky and Tennessee. Just at this time an important test is under way, although shut down for an indefinite time, on Canada Mountain, near Middlesboro, in Bell County in Eastern Kentucky and not far removed from the Cumberland Gap. Another test of interest in Kentucky at this time, which is also shut down, is that drilling by J. M. Thompson at Boonsboro Beach, in Madison County, and in advance of the Irvine and Lee County fields of the Blue Grass State.

Other wildcat ventures in Kentucky are being watched with much interest, there being one in Jackson County, by the Eastern Gulf Oil Company on the Ballrad lease, one in Breathitt County near Quicksand, one near Hope, in Rowan County, and others in Floyd, Elliott, Fleming, Boyd, Martin, Knott, Pike and Laurel Counties.

Mississippi, the most attractive spot and an area that is promising for oil, takes the lead in active genuine wildcat work at this time, with wells under way in Chickasaw, Clay, Pike, Union, Franklin, Copiah, Hinds, Jefferson, Jackson, Lafayette, Lowndes, Lincoln, Washington, Itawamba, Calhoun, Leake, Madison, Granada, Claiborne, Holmes, Panola, Perry, Rankin and Scott Counties, which cover all sections of the state. The wildcatter has picked on Mississippi for the finding of a new producing field, and if none of the wells now under way prove productive, there will be little chance to open up a field in the state.

In Alabama there are practically ten wildcat ventures, with rigs up or drilling, in Morgan, Baldwin, Sumpter, Hale, Shelby, Wilcox, Clarke, Madison and Lawrence Counties.

In Georgia there are one rig up and four wells drilling, and in Tennessee there are tests being drilled in Clay, Gibson, Ohio, Hardeman, Fayette, Benton, Hamilton and Overton Counties.

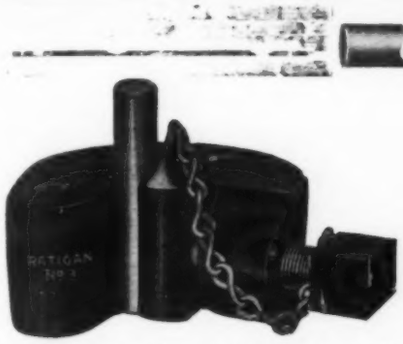
Western Kentucky has numerous test wells under way and should they prove productive will extend the producing regions, as they are not real wildcats, not being far removed from production.

In West Virginia attempts are being made to extend both the oil and gas fields of the state by the drilling of tests on the outer edges and some are far away from any production. Nicholas County is one of the newer counties that have recently come into the gas producing end of the game, as the Hamilton Oil & Gas Company has been active during the past year in bringing in a fairly nice gas volume and is now working on extensions to the area already drilled. Other counties that are being tested are: Boone, Kanawha, Cabell, Putnam, Lincoln, Jackson, Calhoun, Roane, Pleasants, Wood, Braxton, Gilmer, Ritchie, Doddridge, Marshall, Tyler, Wetzel, Monongalia, Marion, Preston, Harrison and Lewis.

Operations in both Pennsylvania and New York are being done close in around old producing properties, although wildcat work will be in vogue during the summer months.

In Ohio there are many spots that will be tried out during the summer season, provided crude oil takes a turn for the better in the way of a substantial advance in price. There are still vast areas in almost every part of the state that have been overlooked in the rush for other fields and with things as they are this territory is bound to come into play in the immediate near future. Southwestern and Southern, as well as the Northeastern portion, have not as yet developed anything for the reason that the trade has looked upon them as worthless for oil or gas. The outside work will be adjacent to old production to a large extent, but numerous wildcat ventures are sure to be made. Advance wells are already under way in Hardin, Shelby, Darke, Mercer, Paulding and Defiance Counties in the Northwestern Ohio field, and the Central Ohio field that extends from the Ohio river on the south to Lake Erie on the north, will get an active drilling campaign not alone for the shallow Berea sands, but to the Clinton lime and the deep Trenton lime which has been found productive in a couple of wells near Newark, in Licking County, during the past year. Several wells are now under way with the Trenton as their mark. Southeastern Ohio field is gradually extending to the west and north and the current year will see much advance work accomplished.

Indiana is in for a thorough wildcatting and according to advice, much will be started as soon as the winter sea-



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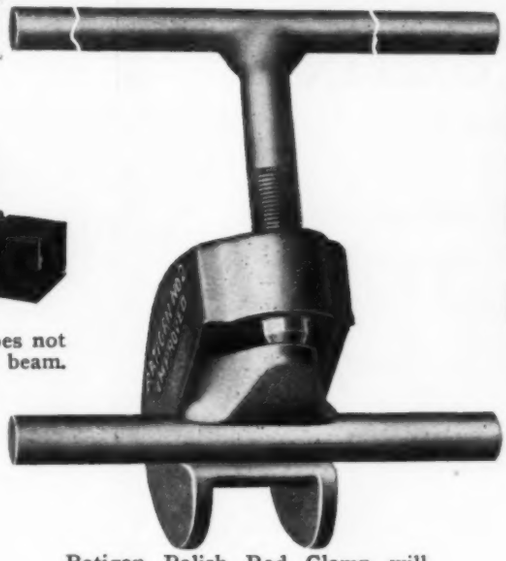

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son subsides. There are vast areas over the state that have never been touched by the drill. There are now three fields within the state. The Trenton limestone in the northeastern portion; the Princeton field in the southwest and the Sullivan field, also on the western central border of the state, to say nothing about the possibilities in the northwestern section, in what is known as the Medarysville field of Jasper County, and the extreme southern part of the state along the Ohio river.

There is little talk and less movement among operators in the Illinois field, and whether or not there will be much wildcat work remains to be seen when the spring season opens up. There are numerous sections that are untested, especially that along the western section of the north half of the state, and in the western portion of the south half are the Waterloo and Ava-Campbell Hill fields of Monroe and Jackson Counties, that are both oil and gas producers. A wildcat venture is now being made in Sargent township, Douglas County, on the W. E. Brown lease, near Alta Pass in Union County, and in Clay township, Hendricks County.

Some years ago oil in small quantities were found on Manitoulan Island, in Lake Superior, in the Northern Peninsula, and there is talk of operators to make another test, but nothing has been accomplished in the way of leasing as yet.

Louisiana-Arkansas Have Much to Do

By R. E. Leigh

Special Correspondent

Louisiana oil operators face the new year with two great yearnings. First, for better crude prices; and, second, for new production. The great Smackover boom spent its force during the last year; and, of the two new fields which appeared on the horizon a year ago, neither has fulfilled expectations. Accordingly, men and machinery identified with the development phase of the industry, who heretofore have been able to move from one Louisiana or Arkansas field to another without loss of employment, now face the prospect of a lean year, unless new productive areas are discovered soon. And, last but not least, the refineries and pipe lines of the territory are foreseeing the need of additional crude supplies, as inevitable production declines continue.

There are a number of localities in which excellent showings of oil have been obtained during the last year, or previously, as for instance Shongaloo, Sarepta, Spring Hill, Oakland, Lisbon, and Urania; but it must be admitted that no where in Louisiana or Arkansas, with the possible exception of Cotton Valley, can new or greater production be foreseen with any degree of certainty. Oakland, in Union par-

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ish, which promised so much a year ago, has failed to develop into an oil field; and Cotton Valley, in Webster parish, where development is as yet incomplete, has so far fallen short of expectations.

Cotton Valley, probably, should properly be classed as a gas field having a narrow oil yielding periphery surrounding its lower flanks. Over an area of at least five square miles on the crest of the structure, only gas production has been obtained. The oil wells are all located on the northern, eastern, western, and southwestern slopes of the structure. The southern slope is as yet untested; and it is from this area, or from the undrilled deeper sands, that any new production of consequence must come. Almost every oil well in the Cotton Valley field yields salt water in greater or less volume.

In the opinion of many close students of oil developments in Louisiana and Arkansas, the Shongaloo structure, in township 23-9 and adjacent areas, appears as the best bet for 1925. There exists a known structure of heroic dimensions, having many characteristics in common with the neighboring structures at Haynesville and Cotton Valley. At one time, during the Haynesville boom, it was believed that the Haynesville and Cotton Valley structures might be joined by a peninsula of productive territory. And so, ultimately, they may be! A gas well which sprayed oil when completed in 1921 (Sinclair Oil Company's Mayfield No. 1), located on or near the crown of the Shongaloo structure, is only four and a half miles west from the western edge of the Haynesville field.

Since the Mayfield well is thirty-five or forty feet higher, structurally, than the producing oil wells at the western boundary of Haynesville, it is conceivable that the Shongaloo structure may slope gradually downward in that direction. Thus, the thought follows that, as gassers and sprayers may be drilled on the crest of both the Cotton Valley and Shongaloo structures, so, possibly, may oil production also be obtained from the lower levels of both.

Near Urania, in La Salle parish, the Urania Petroleum Company, of England, has drilled two wells in which good showings of oil and/or gas were encountered. The Stovall Drilling Company, drilling during the early part of last year in a well located in section 27-10-2e, on the property of the Central Lumber Company, suffered a tremendous gas blow-out at a depth of 1,445 feet. Acreage in this community is very closely held, in fee by big lumber companies and under lease by major oil companies; and this situation has retarded the prospecting campaign which may ultimately reveal a new oil reservoir.

Although the Smackover boom is nearing its close, it is certain that the wildcat prospecting campaign which will radiate from its proven boundaries has barely begun. Especially alluring is the area lying between the Smackover and Stephens fields, where the first showing of oil in the state was obtained.

Most important of all, possibly, as a potential source for new production, are the deeper sands which have not yet been tested on many of the producing oil fields of Louisiana and Arkansas. These sands produce oil and gas at Pine Island, in Caddo parish; yet adequate tests have not yet been made of them at Haynesville, Cotton Valley, Bellevue, Shongaloo, Sarepta, Spring Hill, or Smackover. A deep test is now being put down by the Magnolia Petroleum Company in section 36-15-20, of the Stephens field, in Columbia County, Arkansas.

That the Woodbine sand, especially, has not yet been tested at Haynesville, Smackover, and nearby fields, seems at first surprising. However, with prices at low levels during the past year, there has been no incentive to search for new production under leases already validated. However, production declines now becoming noticeable may force such an effort during the current year.

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Managing a Warehouse to Induce Economy

Operating costs of Panhandle Company are reduced through method of handling supplies

By Grady Triplett
Staff Representative

Wichita Falls, Texas, Dec. 15.—When a lease foreman of the Panhandle Refining Company starts to the general warehouse for an order of supplies he is prepared to give his order with all the care of giving one at a corner grocery, where payment must come from his own pocket. This attitude is not one of fear. Rather it comes from knowing that the economy practiced in buying well supplies will show up in the record for operating the lease.

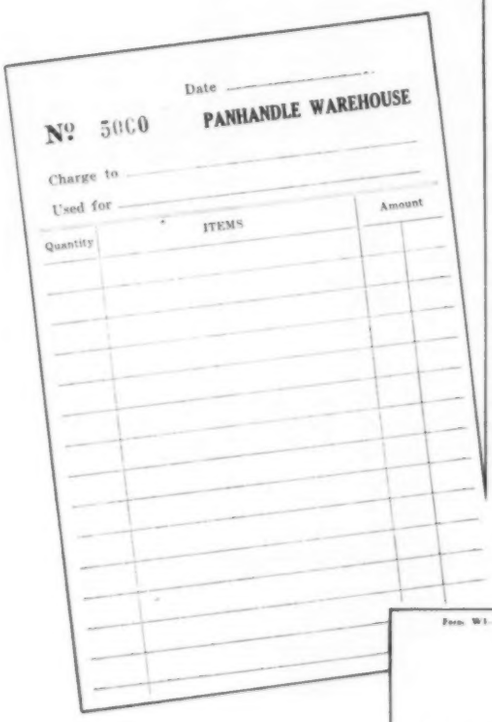
If some months later a piece of the equipment ordered so cautiously should outlive its usefulness on the lease, the foreman will be just as particular to take it back to the warehouse. It may look like something fit only for the junk yard. But it will get back to the warehouse just the same. For the lease operator knows that, although the equipment is finally classed as junk, his lease will be credited with its value and his record on the company's books will be all the better, so far as operating expense is concerned.

This attitude on the part of employes of the Panhandle Company is the result of the system used in the warehouse. Under the direction of R. J. Mann, purchasing agent, the general warehouse has come to be a clearing point for all equipment of the company. All equipment used by the company passes through the warehouse, either in fact or through the system of records, which is the core of the whole method. This system of records serves to keep such close tab on equipment that the physical inventory a year ago varied only $60 from that shown on the cards used in the system.

How It Works

Perhaps the first outstanding point in the stock-keeping system of the Panhandle company is that the purchasing department and the warehouse are combined. The purchasing agent has his office at the warehouse. When he makes up an order, he knows the condition of his shelves from actual knowledge, as well as from reports set before him.

In ordering supplies the Panhandle method is similiar to that of other companies. A requisition prepared by the purchasing department may go to the general office for approval. Many however, go from the purchasing de-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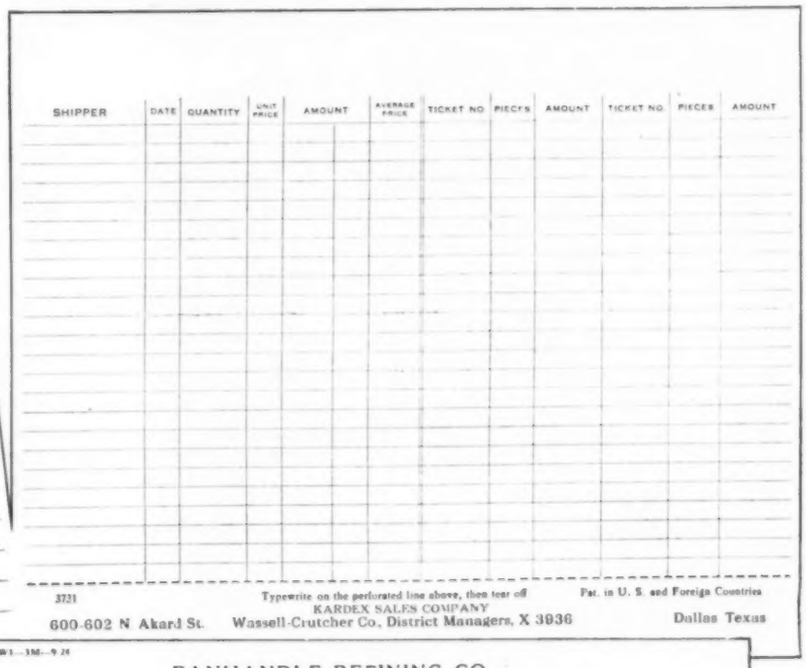
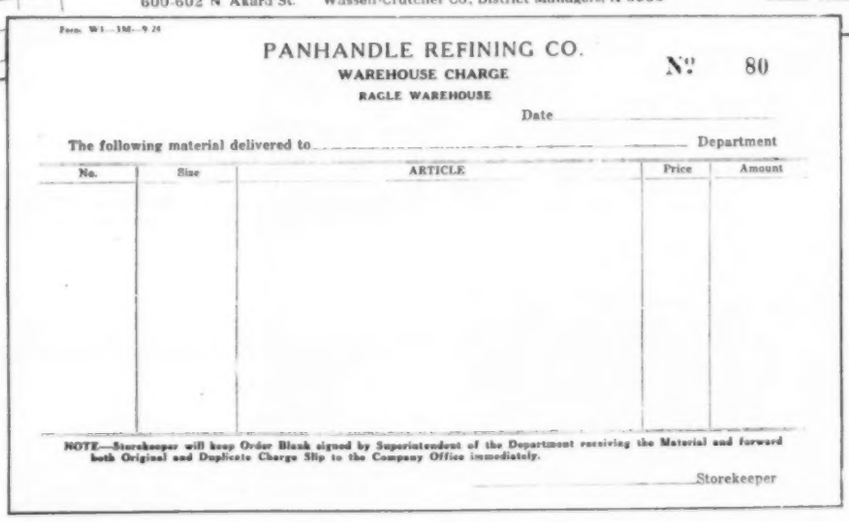
Used for _____
Quantity | ITEMS | Amount


SHIPPER | DATE | QUANTITY | UNIT PRICE | AMOUNT | AVERAGE PRICE | TICKET NO. | PIECES | AMOUNT | TICKET NO. | PIECES | AMOUNT
3731 Typewrite on the perforated line above, then tear off Pat. in U. S. and Foreign Countries
KARDEX SALES COMPANY
600-602 N. Akard St. Wassell-Crutcher Co., District Managers, X 3936 Dallas Texas


Form W-1—3M—9-24
PANHANDLE REFINING CO.
WAREHOUSE CHARGE
RAGLE WAREHOUSE
No. 80
Date _____
The following material delivered to _____ Department
No. | Size | ARTICLE | Price | Amount
NOTE—Storekeeper will keep Order Blank signed by Superintendent of the Department receiving the Material and forward both Original and Duplicate Charge Slip to the Company Office immediately.
_____ Storekeeper

Left above—Order blank filled out by store keeper and sent to office.
Right above—Permanent inventory card. Equipment is listed in left half of this form and charged out when delivered on right half of form.
Below—Requisition used by purchasing agent and sent to general office for approval.

TRANSFER No. 855

PANHANDLE REFINING COMPANY

DATE

TRANSFERRED FROM TO

BY TRANSPORTATION CHARGES PREPAID $

CREDIT

PIECES	DESCRIPTION	FOR OFFICE USE ONLY

RECEIVED IN ORDER. TRANSPORTATION CHARGES PAID $

USED FOR

APPROVED SUPT.

In transferring equipment from one department to another or back to general warehouse, this form is used.

partment direct to the manufacturer of the product.

It is on the arrival of the goods at the warehouse that the method used by this concern differs from many systems. All invoices are checked against original orders. When found correct, the invoice is stamped to show what department shall be charged with the supplies. Most supplies are charged to the general warehouse. But the bookkeeping department indicates how the charge shall be made.

As invoices are checked and stamped for the office, the goods received are entered on the record cards, by which the permanent inventory is kept. One card is used for each size or type of a class of equipment. A visible filing system makes this desirable, as the cards are arranged in alphabetical order, making entries quick.

Even each length of rivet is kept on a separate card, just as each length is kept in a separate bin in the storeroom. When a quantity of rivets arrives, it is checked for correctness against the original order and against the invoice of the shipper. If found correct, the shipper's invoice goes to the general office, stamped to show how the rivets shall be charged.

Adding and Subtracting

Then the keeper of the records will turn to his file and get the card, showing the quantity of rivets of that length and size. To the quantity already in stock, he adds the new shipment, arriving at a larger total in the "quantity" column of the card, of course, and filling in all other columns from the invoice.

If the price on the last purchase is above or below the previous price, a new average price figure will result. The record keeper determines the average price from combining all prices. This average price fills the last column of the left half of the card and the left half is all that is used for entering new stock.

When invoices have been stamped, the new stock entered on the permanent inventory cards, the equipment put in its proper place, it is then ready for some lease foreman to come along with one of his cautious purchases and take it out for use.

When the system was first installed by the Panhandle company each lease foreman was given a supply of order blanks on the general warehouse. He was supposed to come to the warehouse with his order properly filled. But this was given up. It was found impractical to enforce such regulations, as men on a lease might need equipment when the superintendent was away.

Just Like Sox

So the man needing equipment for a lease or for any other department may come to the warehouse and be supplied without bringing along any written order. But the store keeper has a book, something like that used by the salesmen of a clothing store. In this he writes down the items wanted, designates the lease or department they are for and has this ticket signed by the person taking the equipment away.

This ticket is but a temporary record, as it is attached by the storekeeper to a warehouse charge form, printed in triplicate. Both these go to the office at the warehouse and pass into the hands of the record keeper. From the data on the ticket supplied by the storekeeper, he fills in the warehouse charge ticket on the typewriter, listing the equipment furnished, its number, its size, the price and the total amount. From this information the record keeper also turns to his permanent inventory and subtracts the stock from the cards, just as he previously added it to the stock.

The right side of the card is used for making the entries when stock is taken from the warehouse. If a card shows two dozen balls and seats in stock, while a ticket from the store keeper shows four issued to a lease, the four issued will be deducted from the total and the total in stock left at 20.

The warehouse charges are filled out in triplicate. The originals to the general office daily. But the bookkeeping department does not enter them until the duplicates arrive. These duplicates are sent to the department receiving the material, when the originals go to the general office. The man in charge of the department must approve the duplicate and send it to the general office. When both the original and the

Panhandle Refining Company No. 3501

Warehouse Requisition

Date	No. In Stock	REQUIREMENTS: Immediate Use	For Stock	Total Required	SIZE	ARTICLE	RECEIVED: Date	Quty.	Invoice Check

The above requisitioned materials are necessary for immediate use and stock as shown.

Approved by:

Superintendent Storekeeper.

This form is filled in the warehouse office from the slip furnished by the storekeeper and permanent inventory cards are posted from it.

FOR CLASSY SERVICE	
Tongs	
Tubing Catchers	
Elevators	
For all purposes	
It must be DUNN	

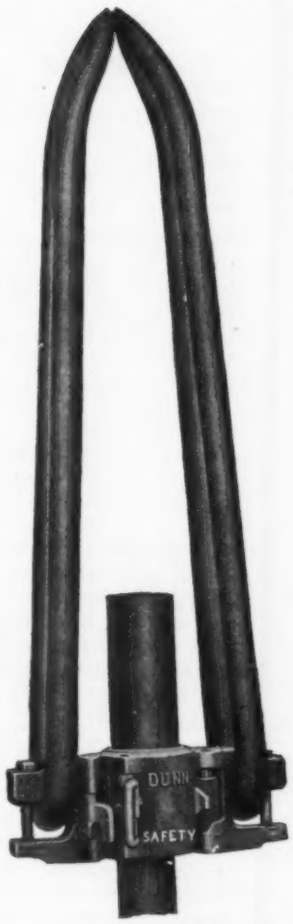
DUNN TOOLAGRAM

Original
Practical
Economical

Where There's a DUNN

—*there's a way!*

And your job can be done easier, quicker, and safer when you have Dunn Tools to do it with.



(*ithadtabedunn*

The DUNN Safety Elevator

There was need for an elevator combining safety with easy, fast operation in the maximum degree. We built one. The Dunn Safety Elevator, not only is absolutely safe—it is fool-proof. It simply cannot drop the string. That's the biggest feature of this elevator and is one of the features in which it differs from any other elevator yet devised. Not only that, but it is strong enough to carry any string—it is faster than the third speed in rotary drilling—it's the elevator you should have.

If your local supply house can't show this elevator—Write us.

DUNN MFG. COMPANY
Oxnard, California

OIL WELL PATENTED DUNN TOOLS
TRADE MARK REG

Say you saw it in The Oil Weekly

duplicate arrive, each bearing corresponding serial numbers, the bookkeeping department makes its charges according to the instructions on the warehouse charge form.

Coming Back

The triplicate of this warehouse charge form remains in the general warehouse, being filed serially.

This part of the system deals with receiving new stock, listing it on the permanent inventory cards, then sending it to leases and departments, which includes deducting it from the permanent inventory cards. While at the general office these two operations result in the material being charged to the general warehouse when it is received and then charged to some department, when it leaves the warehouse.

To all warehouse charges, 10 per cent is added as a handling charge for the warehouse. This, of course, is a matter of bookkeeping. But the 10 per cent of all transactions through the warehouse takes care of all expense of the department.

While the Panhandle warehouse exists for supplying the needs of the company, some materials are sold generally. The stock carried by the company is so complete that requests frequently are made for material by other companies. So the Panhandle warehouse is prepared to make cash sales, just as a supply store does. The volume of this business is not large of course.

But the Panhandle warehouse has not necessarily seen the last of a piece of equipment when it is delivered as new to a lease foreman. Hundreds of articles come back, some in good running order, some needing slight repairs, some needing to be rebuilt, a few as nothing but junk. But it comes back, for a Panhandle lease foreman knows he can take his old equipment back and get credit on it, just as he was charged with it when it was new. Furthermore he knows the bookkeeping system in the general office will record this credit and it will show up as more economical operation of the lease.

When a piece of equipment comes back, conditions are reversed, for the department head has something to sell, while the store keeper is in the role of the buyer.

What's It Worth

Take a gas engine, which has seen hard use. The lease foreman may order it sent to the warehouse. He does not want it repaired, for he has no use for it. So he sends it in and in the next few days he calls to see what he can get on it.

The purchasing agent considers the engine as worth a certain sum if put in best possible order. If he can not arrive at an estimate on the cost of putting it in order, he calls for one of the engine repair men to make the estimate. Frequently the engine may have to be rebuilt and that takes a longer process. Whatever the method, the purchasing agent learns what it will cost to put the engine in good order. He deducts this amount from his estimate of its value when in good order and tells the lease foreman he will give what the remainder shows. In fact there is nothing for the foreman to do but accept. It is all company property and the figure fixed by the purchasing agent is final. It would all be the same if the purchasing agent mentioned no figure.

But the credit to be given is what stimulates the lease foreman to get his old equipment into the warehouse. When he took the equipment, he had to go through a transaction. It meant adding a certain cost to operating his lease. Now returning the equipment will takes some of the cost away from the lease operation total.

It is in reality a play on psychology. But it works and the Panhandle company has very little material wasting away on leases.

A regular transfer form is used for this transaction. It is filled out showing the transfer of a gas engine from a certain lease to the general warehouse. When the engine is ready for putting in stock, a card is put in the permanent inventory showing the engine added to stock, while the transfer goes to the general office and results in the bookkeeping department credit-

Gott Water Can

Can be used the year around.

Made in 1½, 3, 5, and 10 gallon sizes.

Special size cans and coolers made to order.

Will last a long time

At Your Supply Store

H. P. GOTT Manufacturing Co.

WINFIELD, KANSAS

The SERVICE rendered by the MID-CONTINENT OIL & GAS ASSOCIATION to the Oil Industry at large, and particularly to operators in the Mid-Continent States, has proven of inestimable value.

Members have seen the advantage of affiliation with this representative organization, by being afforded the privilege of referring their tax and other intricate problems to the Association for expert advice.

Information concerning membership and activities of the Association may be obtained from any of the following offices:

MID-CONTINENT OIL & GAS ASSOCIATION

GENERAL OFFICES
Harry H. Smith, General Secretary
505 Cosden Building
Tulsa, Oklahoma

KANSAS-OKLAHOMA DIVISION
Harry H. Smith, Secretary
505 Cosden Building
Tulsa, Oklahoma

TEXAS DIVISION
J. P. Laney, Secretary
Kirby Building
Dallas, Texas

LOUISIANA-ARKANSAS DIVISION
Jos. B. Elam, Secretary
Giddens-Lane Building
Shreveport, Louisiana

Say you saw it in The Oil Weekly

ing the lease with the value fixed on the engine and charging it to the general warehouse.

Bringing Rentals Back

Frequently equipment is transferred from one lease to another without coming to the warehouse. This same form is used. It goes to the general office and results in the amount of the value of the equipment being credited to one lease and charged to another.

Even rental tools go from the warehouse just as they would from a supply store. When a fishing tool is needed on a well, the man coming for it signs a form in duplicate, taking the original and leaving the other in the rental book. Rental begins the date the tool is taken. When the tool is returned, it is noted on the sheet in the rental book. The lower right corner of each of these is perforated and this corner is torn off of slips when tools are returned.

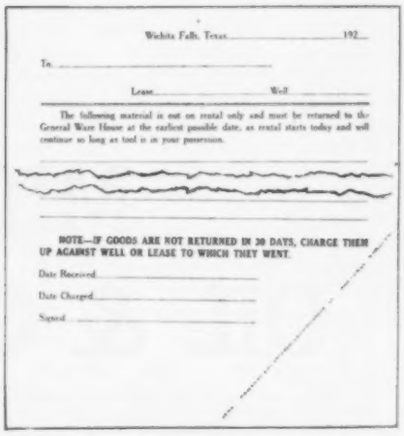
The rule of the warehouse is that rental tools when kept out 30 days shall be charged to the department or lease taking them. In a few instances, these charges have been made. But shortly, the tool would be returned to the general warehouse and credit asked. While this adds to the bookkeeping, it serves to bring rental tools back to the warehouse.

All field superintendents, lease foremen and men in similar positions with the Panhandle company have blanks for making emergency purchases of small equipment in towns. These are used when it would be cheaper to buy from a hardware or supply store than to come a long distance to the warehouse.

Merchants selling under these conditions must send along the order of the man making the purchase when presenting statements. Otherwise payment will not be made. These blanks, when properly filled, allow the bookkeeping department to charge the purchase to the proper department.

Physical inventory is taken once a year at the Panhandle warehouse. Some years back when records of stock were kept in the general office, the inventory showed a differnce of of several thousand dollars when compared with the records. Once since putting the records in the warehouse, the records and the physical inventory varied only 65 cents. Last year it was $60.

R. J. Mann was formerly warehouse keeper for the company. When it became necessary to employ another purchasing agent, he was given the place. He elected to keep his office in the warehouse. One man attends to all entries on the inventory cards. Another looks after the stock in the warehouse.



Wichita Falls, Texas, _____ 192__

To _____

Lease _____ Well _____

The following material is out on rental only and must be returned to the General Ware House at the earliest possible date, as rental starts today and will continue so long as tool is in your possession.

NOTE—IF GOODS ARE NOT RETURNED IN 30 DAYS, CHARGE THEM UP AGAINST WELL OR LEASE TO WHICH THEY WENT.

Date Received _____

Date Charged _____

Signed _____

Rental tools are listed on this form when sent out. The perforated corner is torn off on return of the equipment.

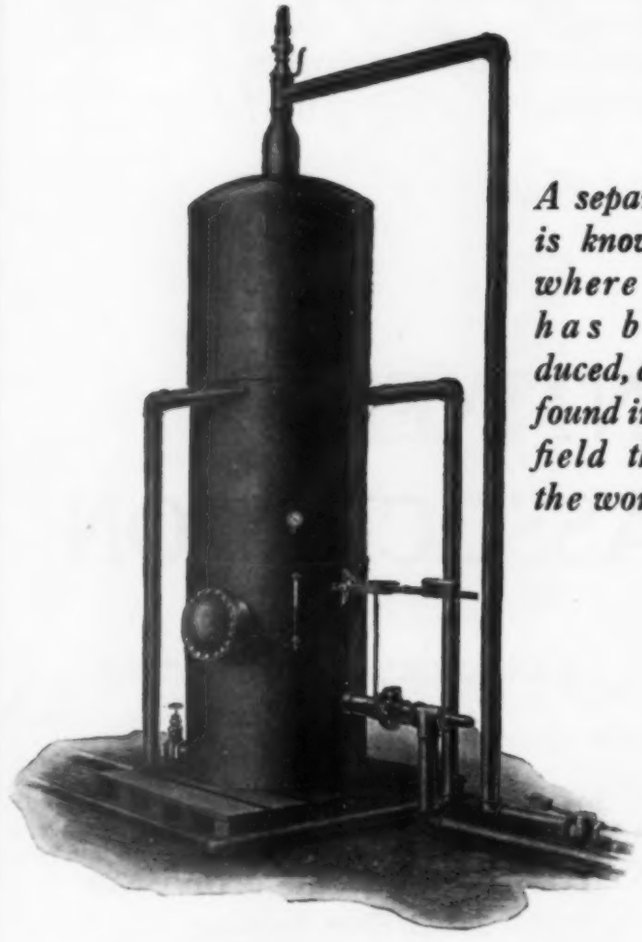
Wrightsman Company To Increase Development

Tulsa, Okla., Jan. 10.—Wrightsman Petroleum Company of Tulsa, preparing for a more intensive development program, has materially added to its organization.

Harry J. Brown becomes first assistant to C. J. Wrightsman, president of the company, and will have entire charge of the land and geological departments.

C. D. Stephenson, L. L. Foley and O. H. Penny have joined the company's geological staff.

The Trumble Will Save Your Oil and Increase Your Profits



A separator that is known everywhere that oil has been produced, and can be found in every oil field throughout the world.

Trumble Gas Trap Company

William C. Rae, Sales Manager, 804-808 Higgins Bldg., Los Angeles, California
Telephones Metropolitan 1902-1903

Eastern Representative: C. F. Camp, 14 East 7th Street,
P. O. Box 289, Tulsa, Oklahoma

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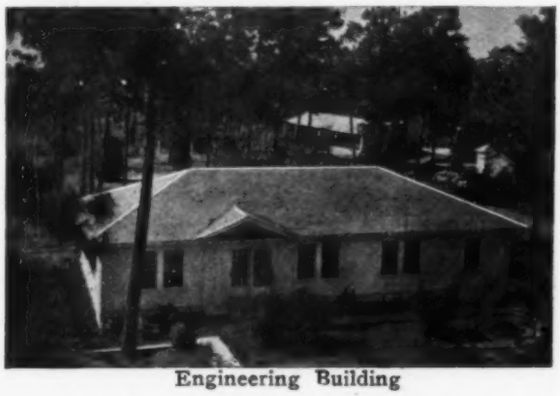
Laboratory Plays Role of "Watch Dog" in Hughes Tool Company Plant

From bar steel to finished rock bits and tool joints, output of plant is thoroughly tested

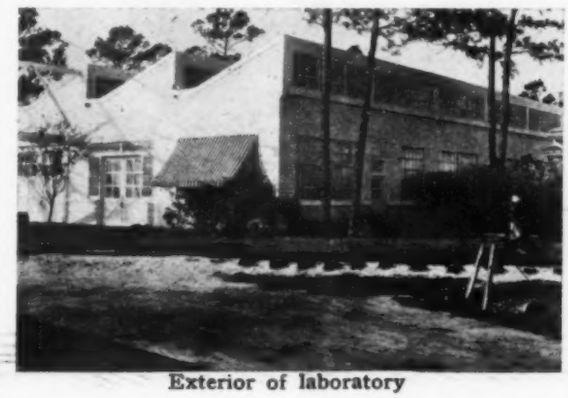
EVERY now and then we read of some step being taken to put the finding of oil on a more scientific basis. For example, witness the recent application of the seismograph and



Engineering Building

torsion balance to the discovery of salt domes in the Gulf Coast territory. Government experts are constantly studying and experimenting on problems of production in order to link science with the development of field methods. Attempts of the Bureau of Mines to furnish data on means of ridding fields of salt water is a concrete instance.

In line with this movement, manufacturers of oil field equipment have shown themselves alive to the situation and the laboratory is coming into its own as a way to check up on oil field tools and make sure that they are good. When one considers the numerous derivatives of petroleum, and the manifold uses to which they are put, it is evident that any economics that can be effected in its production will be a benefit widely distributed.



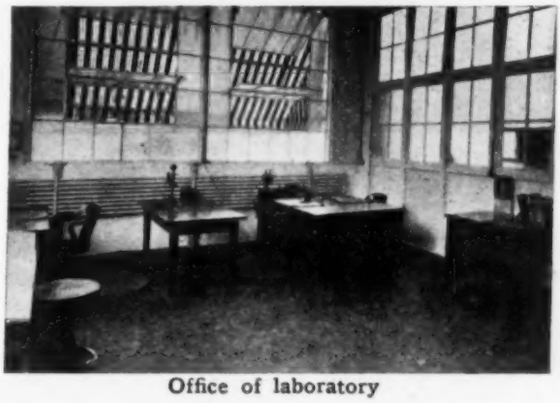
Exterior of laboratory

It was chiefly with this fact in mind that the late Howard R. Hughes determined to build and equip a modern research laboratory which should be effective along the lines of developing and improving oil well drilling tools. It was his idea to make its equipment as complete and up-to-date as possible, and these ideas are being carried out to the fullest extent.

Function of Laboratory

The laboratory of the Hughes Tool Company, though less than a year old, has already proved its worth. Just how it has done this can be shown best by a description of its equipment, and its relation to the other departments.

The laboratory, though housed in a building of its own, is a part of the Engineering Department, and is under the direction of the chief engineer. His office is in the engineering building, which also contains the drafting room, equipped with



Office of laboratory

drafting boards, blue-printing and photostating machines. New designs and working drawings for shop use are prepared there.

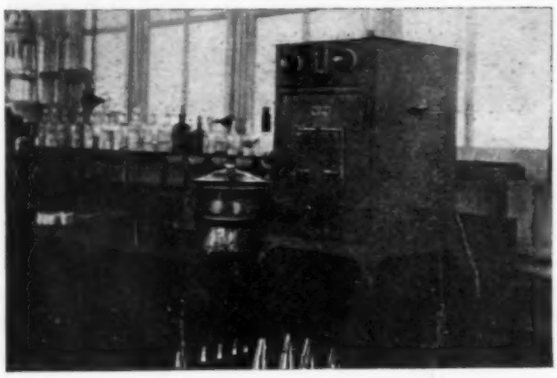
The laboratory is housed in a building of mill type construction with an oil proofed and painted concrete floor to facilitate sanitation. The "saw-tooth" design of the roof makes it possible to obtain excellent light conditions in all portions of the building, and the floor plan is such as to allow ample space for the operation of the various machine tools and testing machines, and also for some future expansion. A modern automatic sprinkler and fire alarm system has been installed.

Equipment in the laboratory is quite complete,

Chemical laboratory

Balances

Combustion Furnace



Electric drying oven

Burning silicon filtrates in electric muffle furnace

Volumetric determination of phosphates

and is adapted to carry on investigations of many different types. It can be roughly divided into six main groups, as follows: Machine Shop, Chemical Laboratory, Metallurgical Laboratory, Physical Testing Laboratory, Bit Testing Laboratory, and Gage and Standards Testing Laboratory.

Chemical Laboratory

The chemical laboratory is equipped with combustion furnaces, drying ovens, volumetric and electrolytic apparatus, highly sensitive beam balances, electric hot plates, fume hoods with suction ventilators and the usual glass ware and reagents. With this equipment it is possible to make all ordinary kinds of quantitative and qualitative analyses of materials.

This branch of the laboratory serves in a very important capacity, not only in maintaining an accurate check on the quality of the material purchased for production purposes, but also in the numerous investigations carried on in the laboratory in the search for better steels and raw materials. It is never idle, and its operation safeguards the user of Hughes Tools from costly failures in the field.

Metallurgical laboratory

Watching Steel

Alloy steel of highest quality is the Hughes standard, and it is used either in the form of castings, forgings, or bar stock. Castings are produced in the company's own foundry under scientific supervision. The minutest detail having a bearing on the quality of the finished castings is carefully watched. The scrap, which is melted in an electric furnace of modern design, must conform to rigid specifications as regards harmful ingredients such as sulphur and phosphorus. To insure that the scrap is satisfactory, it is carefully sampled, and an accurate chemical analysis made. Then, after melting, the steel is again sampled and a rapid analysis made. Then, after melting, the steel is again sampled and a rapid analysis made to insure that the steel is within specifications before it is poured from the furnace into the molds.

Metallurgical microscope

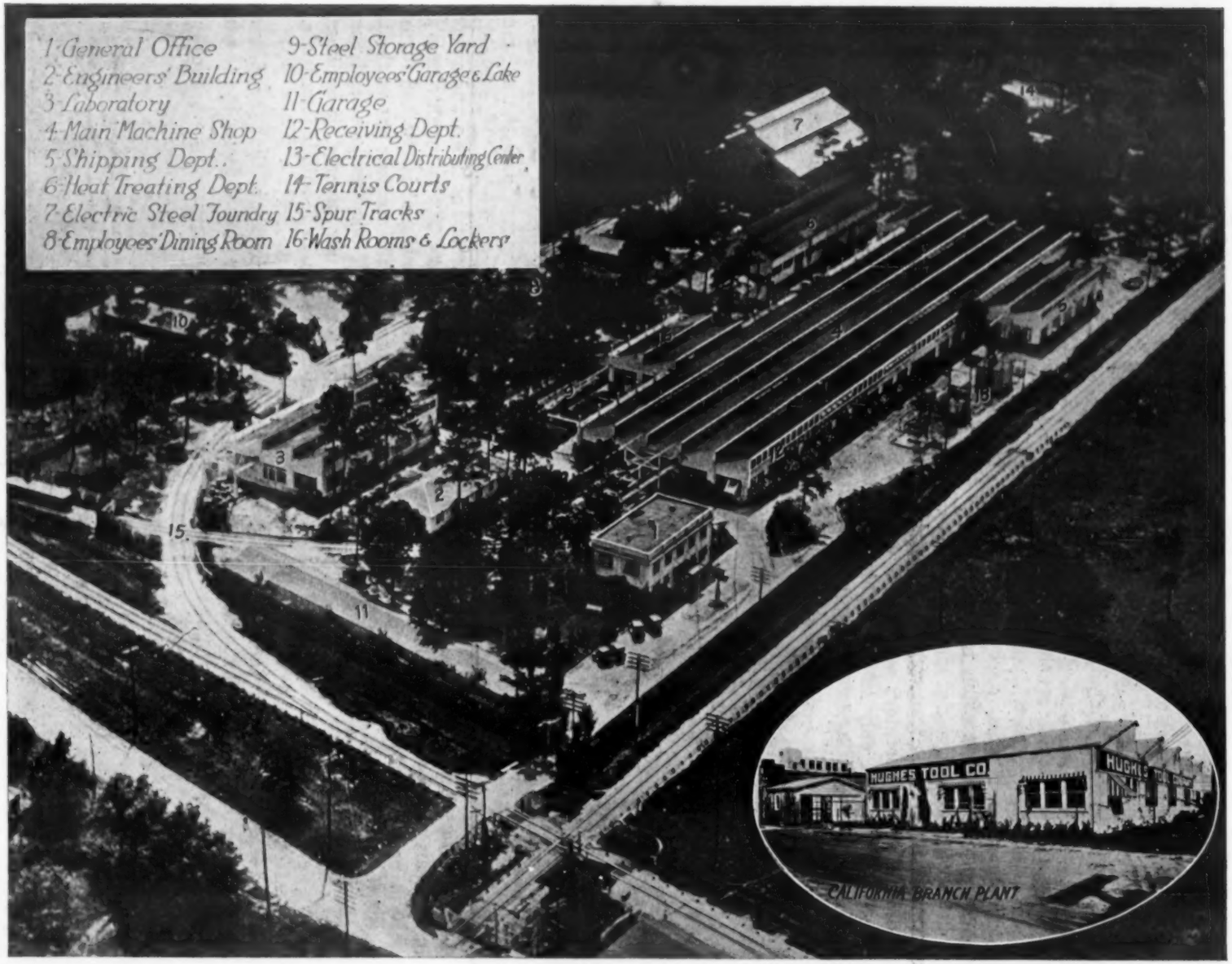
Several heats of steel a day are made, and a thorough check of these for the proper content of the various alloying elements used, entails considerable work in itself. In addition the steel which comes from outside sources is also checked to make certain that it meets specifications. When an order is placed with a steel manufacturer, it specifies the variation in chemical analysis that will be allowed. The steel manufacturer stencils each bar and forging with a code number which identifies the "heat" from which it was made, and his "heat" analysis is furnished for information.

Each Sample Tested

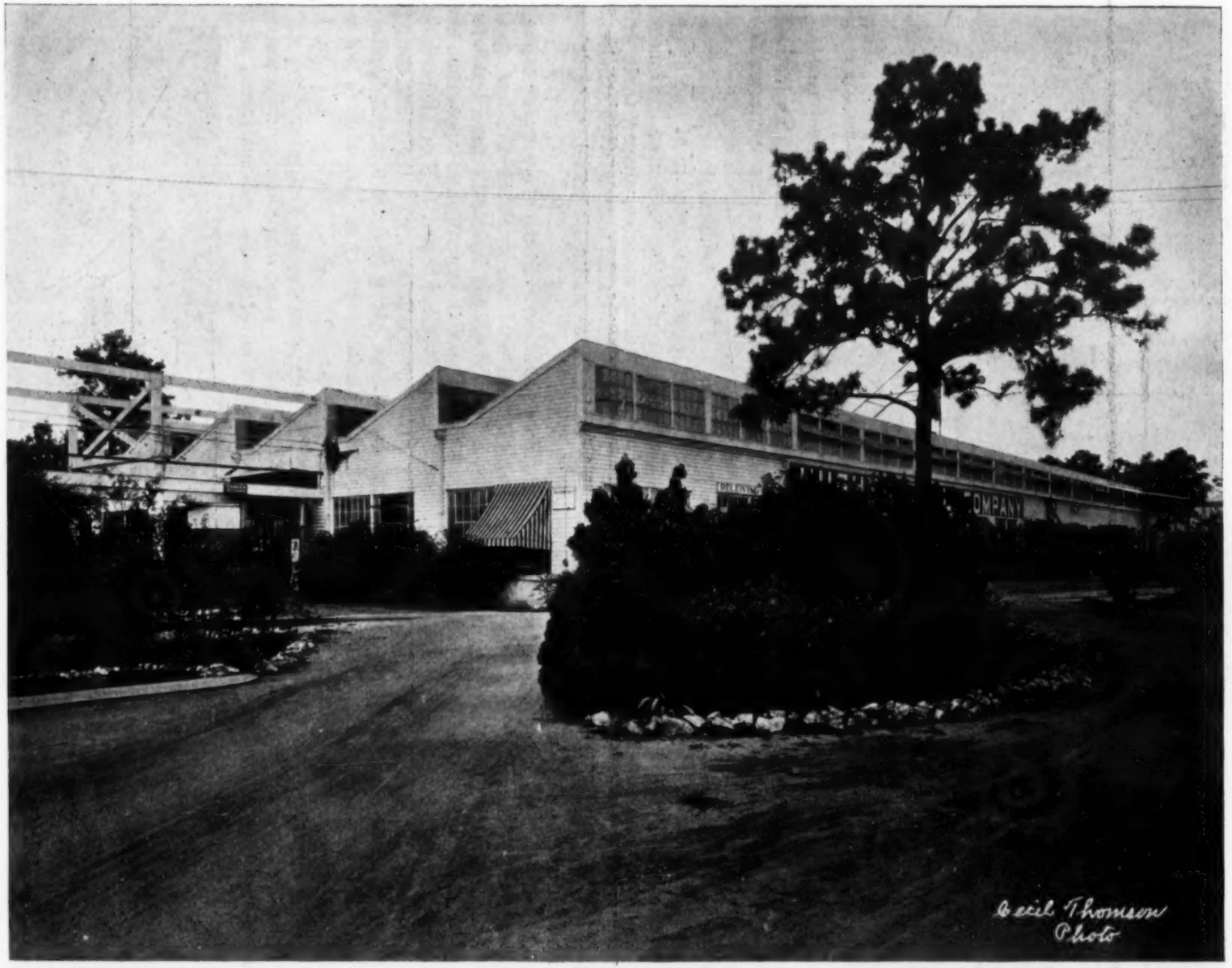
Upon receipt of the steel, a sample is taken corresponding to each code number represented in each size of bar or forging in the shipment. These samples are then drilled in order to obtain sufficient chips for chemical analysis, and a report made by the laboratory to the rough stores department before the material is released for production purposes. If the analysis shows the material to be outside of specifications, and therefore unsuited for the use intended, it is diverted for jig and fixture use, or if this is impossible, it is not accepted.

It is evident from the above that the chemical laboratory is a very important factor in the main-

Laboratory Machine Shop



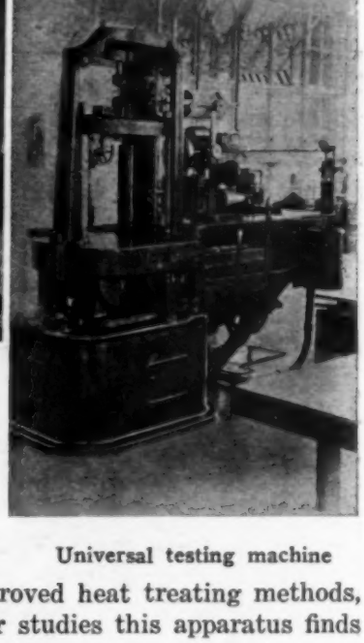
Airplane view main plant Hughes Tool Company, Houston, Texas. Insert shows California Service Plant. A similar service plant is under construction, Oklahoma City, Oklahoma.



Close-up view corner of main shop. Buildings and grounds are maintained spotlessly clean. This atmosphere inspires accurate workmanship on the part of employees

Corner photographic dark room

Physical testing laboratory



Universal testing machine

tenance of high standard of quality. It performs an equally valuable service in determining the suitability of such very important supplies as carburizing compounds for case hardening, fuel oils, molding, and core sands, for the foundry, and the investigation of the effects of the use of different types of slags in the manufacture of cast steel.

Closely related to this last function is the metallurgical laboratory. Its equipment consists of polishing machines for the preparation of specimens and a microscope for examining them. A photographic dark room is conveniently located where photomicrographs, which serve as a permanent record for future reference and comparison, can be developed. In making investigations of this class, small representative samples of the steel, or other metal, are given a mirror polish in order to produce a plane surface as free from scratches as possible. The surface may then be viewed under the microscope in order to study the non-metallic inclusions present, or the sample may be etched with some suitable reagent which brings out the grain structure, in order to investigate the thoroughness, or nature of the heat treatment given. The permanent record is made by photographing the specimen through the microscope, a powerful arc lamp being used as the light source.

Every heat of steel made in the company's own foundry is thoroughly investigated by this method to insure that no undue amount of non-metallic impurities are present, as these are always a source of weakness, and often are the direct cause of failure in service. In experimental investigations of improved heat treating methods, and numerous other studies this apparatus finds daily use.

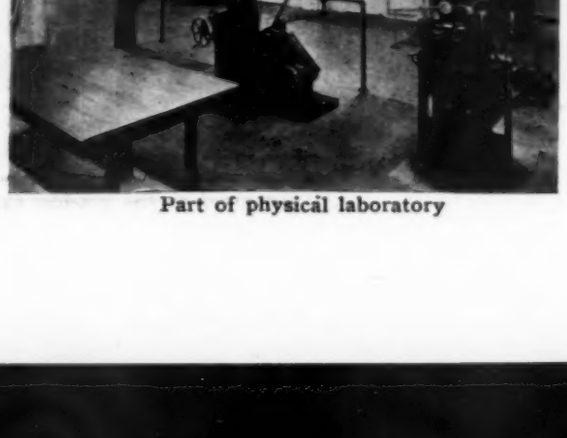
Tool Equipment

The machine tool equipment is of late design, and is operated by skilled mechanics. It consists of lathes, a milling machine, shaper, three drill presses, a belt grinder, a pedestal type grinder, a Universal grinder, and a Universal power driven hack-saw.

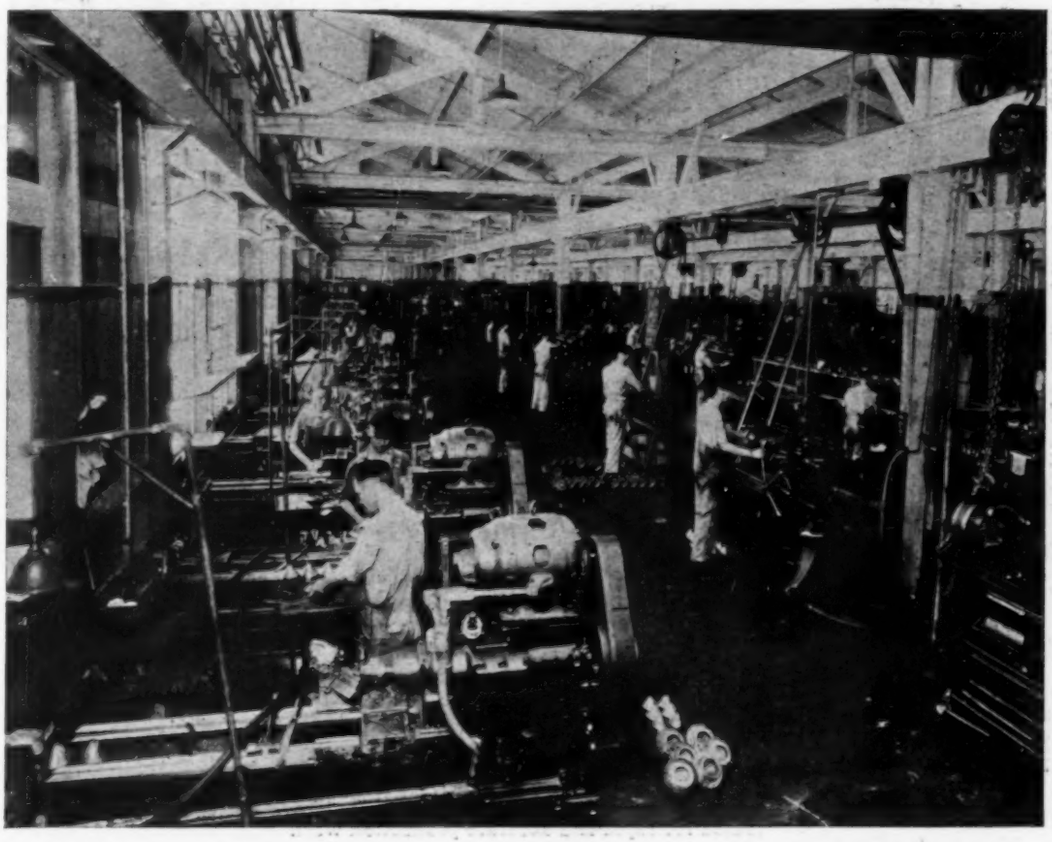
This department prepares the samples of steel for chemical analysis, machines the test specimens for various physical tests, described later, and makes special experimental apparatus and parts used in various tests. In short, it prepares the necessary material, which the other departments, principally the physical testing laboratory require, in order to carry on their studies and investigations.

Physical Testing Laboratory

The physical testing laboratory contains testing machines of latest design, so constructed as to

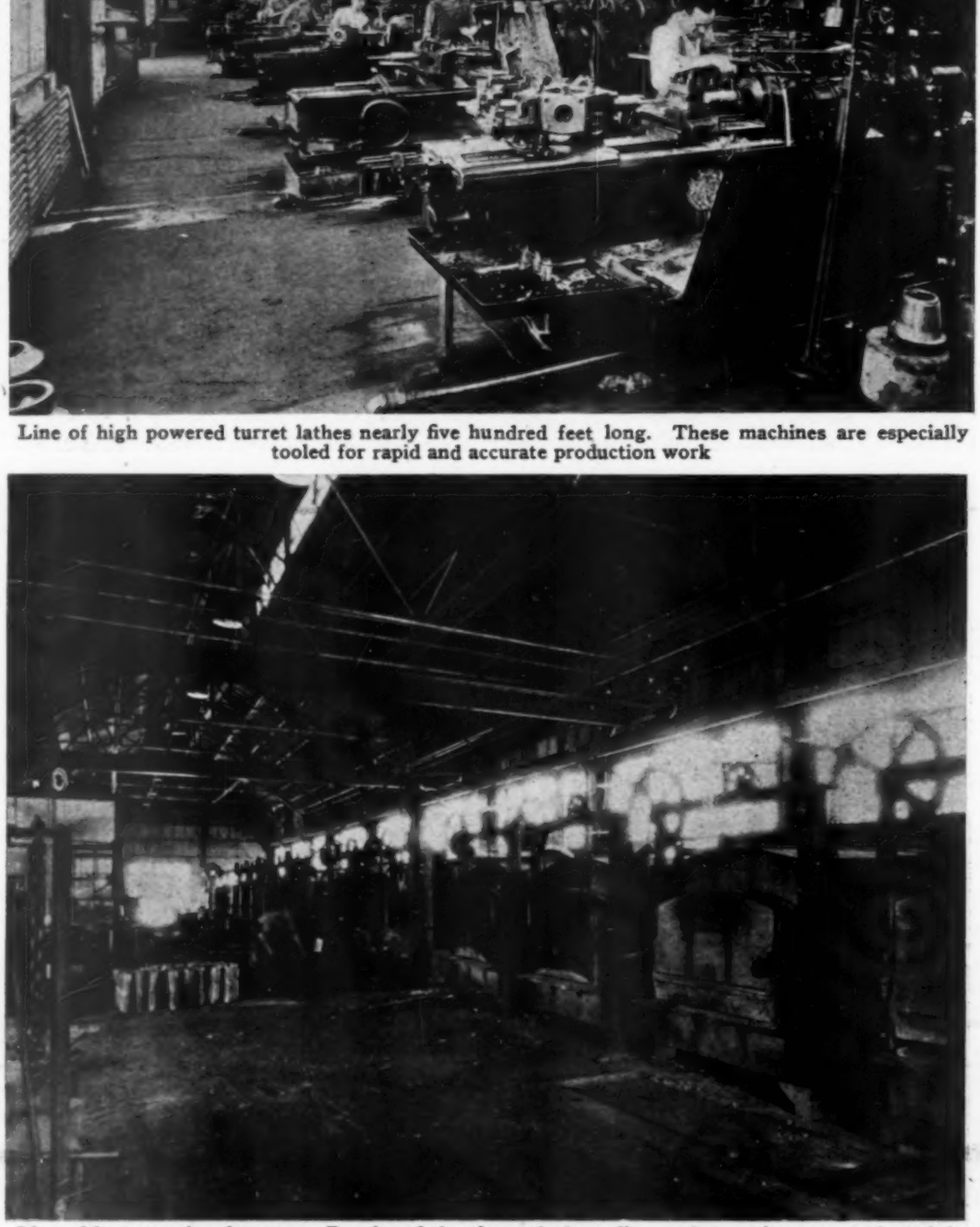


Part of physical laboratory



Interior views of main shop showing excellent lighting, systematic arrangement of machines, and orderly progress of the product through the shop to final inspection.

Line of high powered turret lathes nearly five hundred feet long. These machines are especially tooled for rapid and accurate production work



Line of heat treating furnaces. Results of the theoretical studies and experiments conducted in the laboratory are here put into actual commercial use.

duplicate the stresses and loads to which Hughes tools are subjected under actual field conditions. Tool joints, drill collars, and thru-bolts are at times subjected to severe static tensile loads. The first two named also resist compressive strains at times, while side roller pins must withstand transverse loading, especially when the bit is forced in a tight hole. The Universal testing machine is designed to duplicate the stresses mentioned, and is used to investigate the ability of the materials used to withstand them. It is also used to test specimens from each heat of cast steel made by the company in its own foundry in order to determine the acceptability of the castings poured. Its construction is such that it is practically automatic in operation, in that way reducing the chances of errors in observation to a minimum.

Tested by Blows

In rough digging, the cone pins of the bits as well as reamer pins, are subjected to repeated impact loads. Stresses set up in this way may not be great enough to cause failure by a single application, but the cumulative effect of constant repetition may bring about what is known as fatigue failure, if the part in question is not designed with sufficient factor of safety to take care of them. The kind of steel used, and its heat treatment also, has an important bearing on this question. The Matsumura repeated impact testing machine is used to study such conditions as these. Its construction is such that a standard test specimen is rotated back and forth through 180 degrees, a blow of known magnitude being struck at the end of each rotation. A counter is attached to the machine which records the number of blows required to cause failure, the machine stopping itself when this occurs.

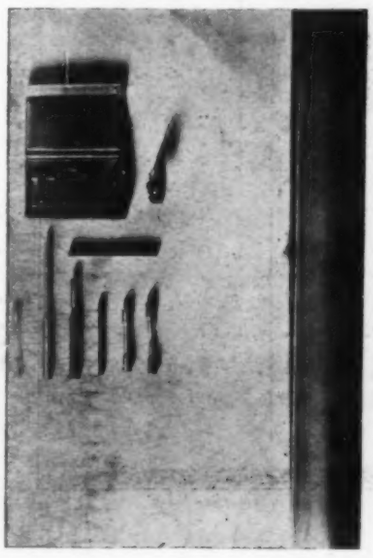
Repeated alternate bending or torsion can be obtained with the combined Upton-Lewis and Olsen-Foster endurance testing machine.

Cone pins are subjected to repeated bending stresses, while tool joints and drill collars must resist repeated torsional stresses. This machine has an autographic attachment which makes a permanent record of the stress variation during the test, and also a recorder which registers the number of repetitions required to produce failure. This machine, along with the Matsumura impact machine previously described, and the White-Souther endurance testing machine whose description will follow, are very useful in studying the effects of various heat treatments on the fatigue resisting properties of steels and other metals or alloys.

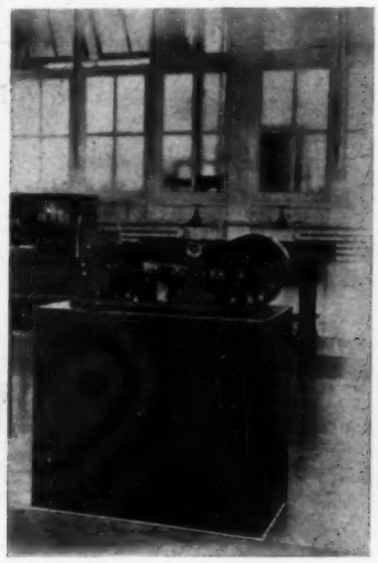
The White-Souther endurance testing machine is capable of testing two specimens simultaneously, the loading being similar to that of a Ford axle. The specimens are held rigidly in a rotating chuck, and are loaded at their free end. The load may be varied to meet the conditions desired, and the number of revolutions required to cause failure are registered by means of rotation counters.

Wear Resisting Test

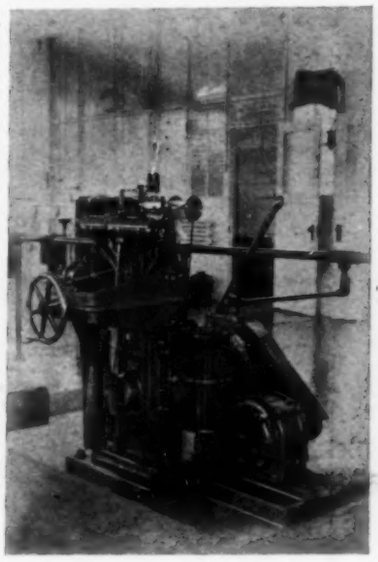
A special abrasion testing machine is available for investigating the wear resisting qualities of various materials. It consists of a rotating disc covered with abrasive, against which the test specimens are held with a certain known pressure. The abrasive is fed to the disc uniformly and con-



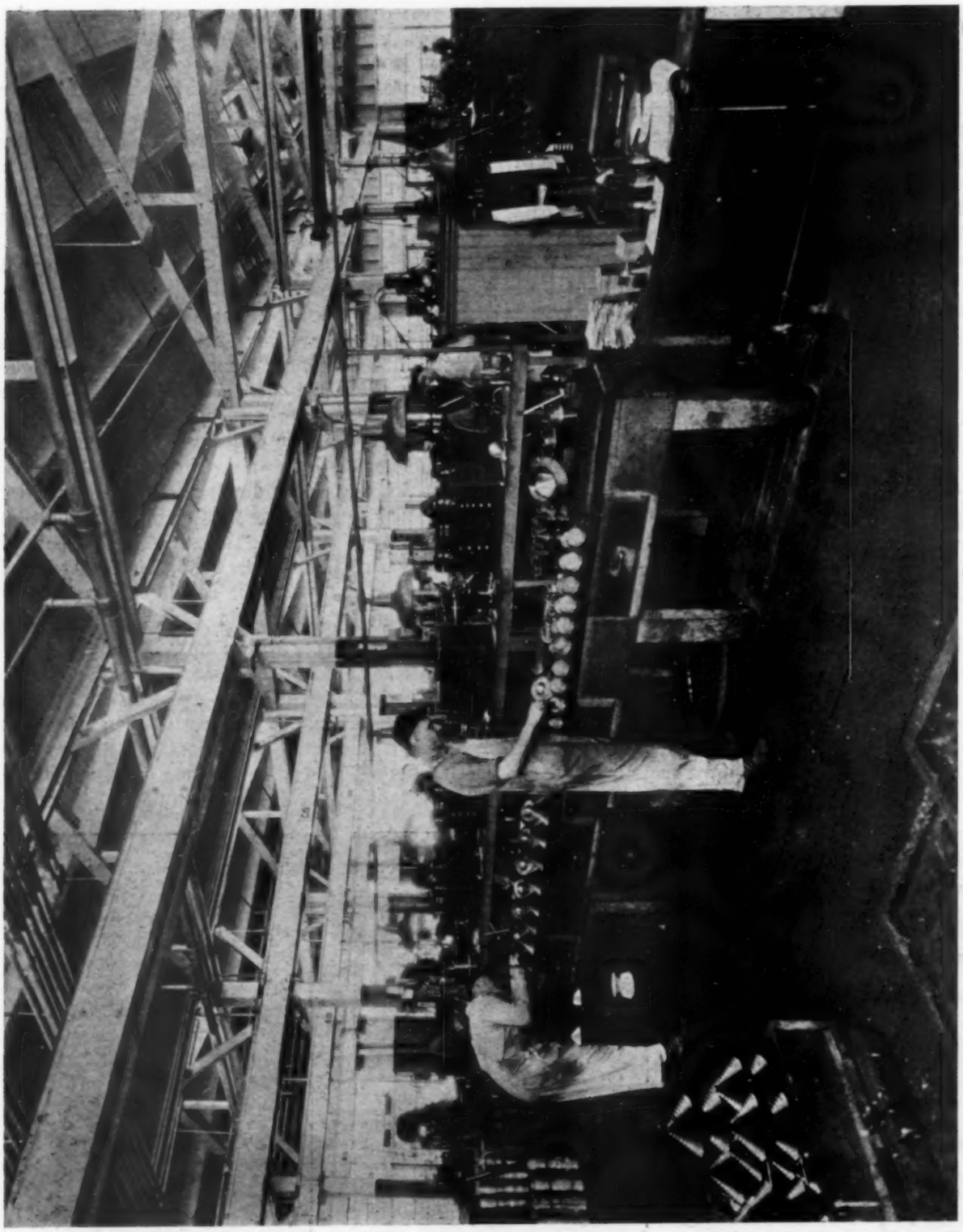
Extensometer, Strain Gage and Standard Test Specimens



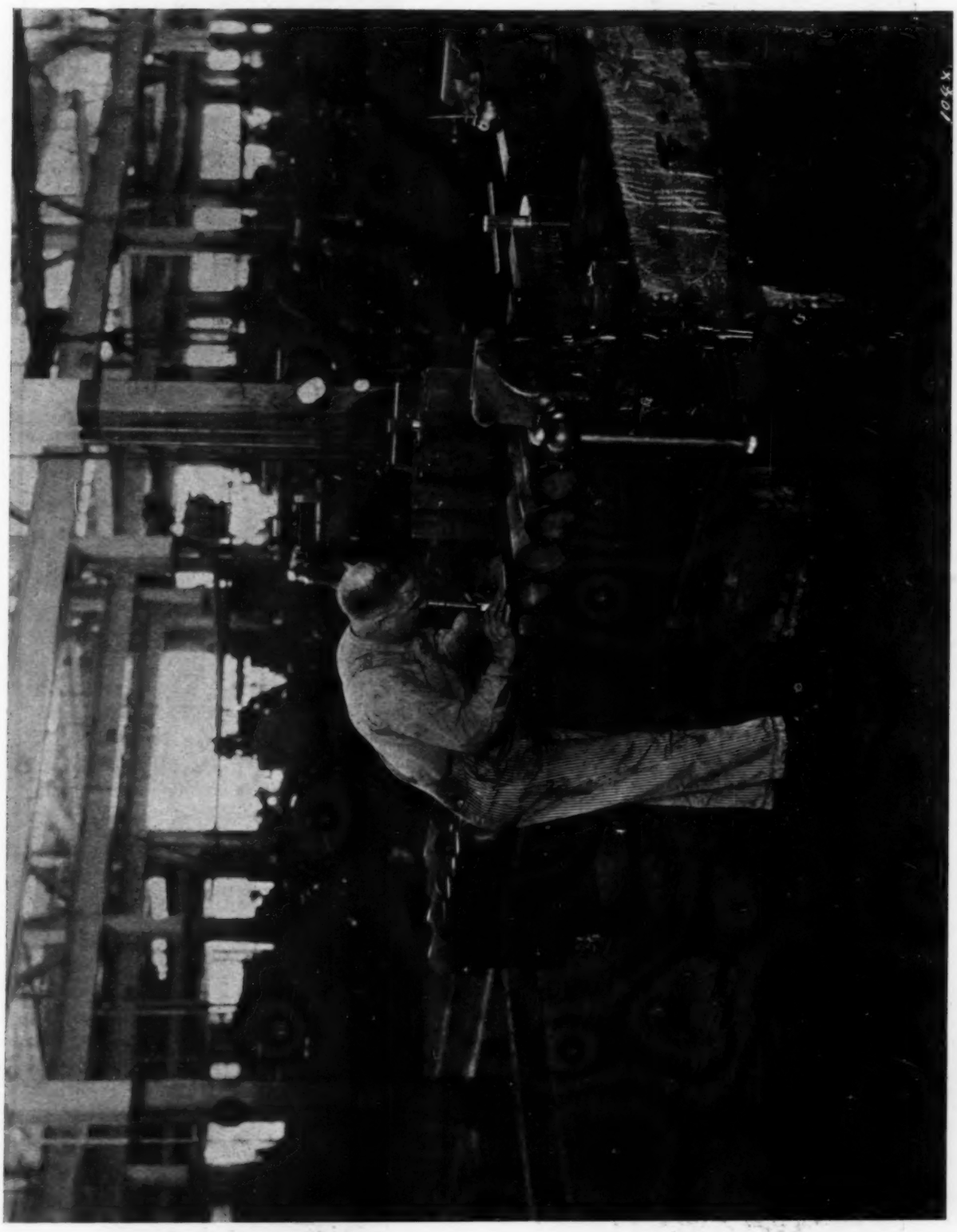
Matsumura type repeated impact testing machine



Combined Upton-Lewis & Olsen-Foster endurance testing machine



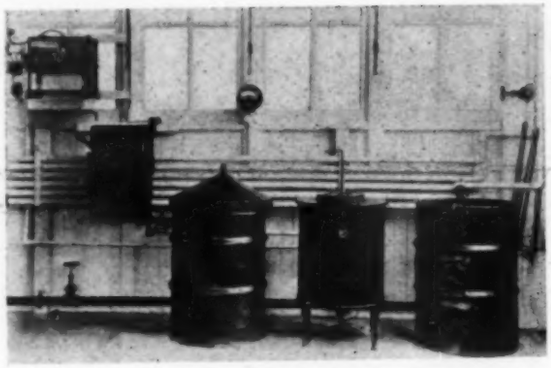
All items of manufacture pass over the inspection tables where they undergo a rigid inspection by men who received their training on the production machines in the shop



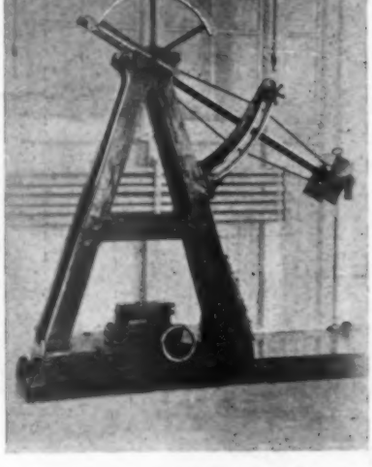
Using a microscope to inspect the hardness of the tool joints. Every half joint has two Brinell impressions made to test hardness. These are read by two independent inspectors.

White-Souther endurance testing machine

Abrasion testing machine



Electric heat treating furnaces



Izod impact testing machine

Brinell hardness testing machine

tinuously, insuring that each of the three specimens, which are tested simultaneously, are subjected to the same conditions. Conditions approximating those met under actual drilling conditions can be reproduced on this machine, and it is most useful in developing materials which will successfully resist the abrasive conditions to which cones, milling tools, reamers, bit heads, tool joints, and various other parts of the Hughes products are subjected.

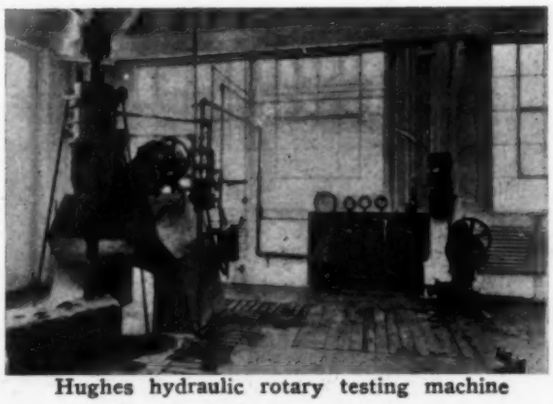
Impact Testing

It sometimes happens that the driller accidentally "drops" his drill stem when coming out, or going into the hole. This results in a sudden load being applied to the cone pins when the bit hits bottom. This is known as an impact load, and is also caused by other conditions met during the drilling operations. In order to successfully withstand such stresses, the material must have high

Shore Scleroscope

resistance to impact or shock loading. This property is investigated, and measured by means of an Izod impact testing machine. For this test the specimen is clamped in a stationary vise, and a hammer swinging like a pendulum, strikes a blow of known magnitude, causing fracture of the specimen, and the energy required to do this being recorded on a scale.

Practically all tests are carried out on heat treated specimens, since this develops the maximum strength of the steel. Heat treatment is a science, and its great value and exacting requirements, have only recently begun to be recognized. In order to get consistent and satisfactory results, temperature conditions must be known and maintained with great nicety. This work is carried on in an electric furnace which is controlled by an automatic temperature recorder. This instrument not only draws a curve recording the temperature of the furnace at all times during the run, but it also maintains any desired temperature to limits of less than plus or minus 50 degrees F., by opening and closing the power circuit as the temperature requires. Two tanks, one containing oil, the other water, are conveniently located so that the heated steel may be quenched and properly hardened.



Hughes hydraulic rotary testing machine

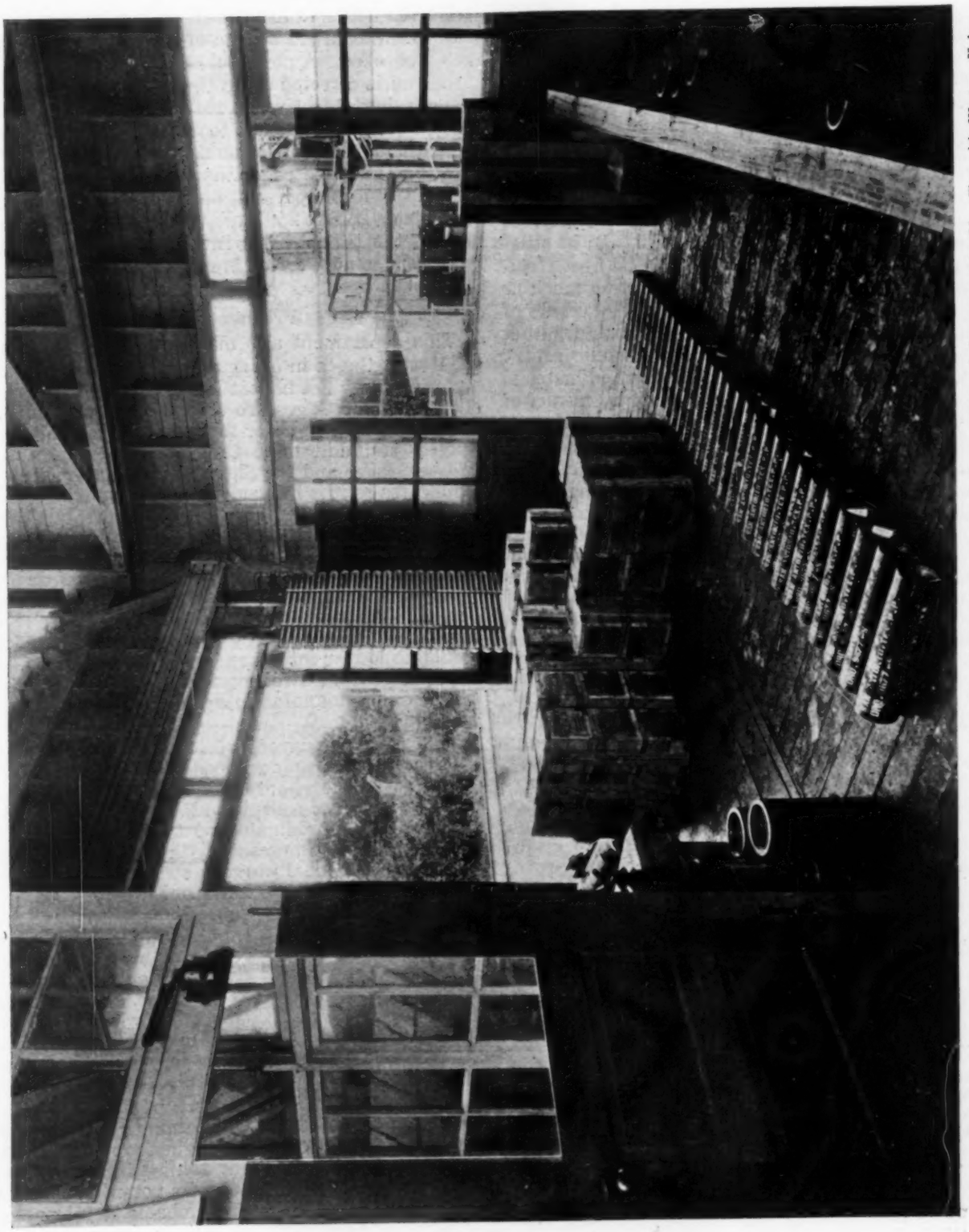
Testing Hardness

A Brinell hardness tester and a Shore scleroscope are used to measure the hardness of the heat treated specimens. These instruments serve to compare the effect of heat treatment on various test specimens, and indicate whether the results sought by heat treating have been obtained. The Brinell tester is used on the softer steels and alloys, while the scleroscope is used on materials such as hardened tool steels or carburized materials.

The Brinell machine presses a ten millimeter hardened steel ball into a smooth plane surface, under a load of 3000 kg. The diameter of the resulting impression is accurately determined by means of a special microscope, and is a measure of the hardness of the material. The operation of the scleroscope is based on a somewhat different principle, insomuch as it measures the resilience, or static, properties of the material. The instrument consists of a glass tube of very accurate and true bore, containing a small hardened steel hammer having a diamond set in its point.

Master Gage and instrument cabinet

Corner of the finished stock room where large stocks of Hughes tools are kept boxed and ready for immediate shipment



Entrance to shipping department. This department is open day and night 365 days in the year. A direct private telephone connects this office with Western Union. Appreciating the cost of shutting down a drilling rig, every facility has been provided for the rapid transmission of messages from the field and the immediate delivery of material to the first departing train. Shipping Clerk on duty at all hours day and night, Sundays and holidays. Phone Wayside 1321.

This hammer is released from a definite known height, and the height of rebound is noted on an arbitrary scale fastened to the glass tube. The higher the rebound, the harder the material among others of its kind. This instrument, however, would not be useful, in general, in making comparison between dissimilar materials, such as steel and ivory.

Drilling Test

The various testing machines already described are concerned chiefly in testing the materials entering into the manufacture of Hughes products—testing them according to the loads and stresses the individual parts must withstand, and in order to effect improvements in material and heat treatment. There is another very interesting machine in the company's laboratory which is capable of thoroughly testing the finished product, whether bit, or milling tool. This is a hydraulic rotary drilling machine. The tool to be tested is fastened to the "drill stem," which is rotated by means of a variable speed motor. The drill stem can be raised and lowered at will, and the pressure on the tool being tested can be regulated as desired. Tests are made under conditions resembling actual field practice as nearly as possible. Rocks resembling the structures encountered at great depths are kept on hand for these tests, and consist of granites, sand stones, lime stones, and others. The effect that variation in rotational speed and weight have on the drilling speed are studied, and many very interesting points have been brought to light.

Accuracy in Threading

The last department to be described, though by no means the least important, is the Gage and Standards Division. When one considers the great importance of accurate fits, and certain interchangeability to the man in the field, one does not wonder at the care taken here to maintain a high degree of accuracy and close adherence to established standards. Highly accurate and very sensitive measuring instruments are part of this department's equipment. Hoke precision blocks, accurate to within less than ten one-millionths of an inch, thread standards, calipers, micrometers, dial indicators, micrometer microscope, and a Hartness screw thread comparator, are available for the work carried on.

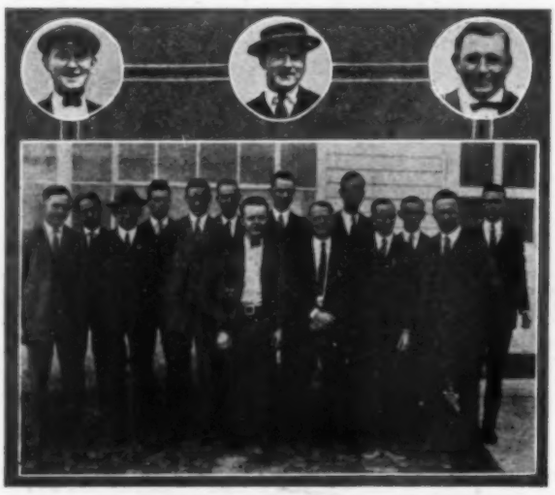
Every hob used in milling the threads on Hughes tool joints is checked by means of the comparator before it is allowed to be used. In this method of checking, the hob or other threaded parts to be inspected, is mounted rigidly on a carriage, and carefully lined up with respect to a screen. This screen is located a certain distance from the hob, and has drawn on it with great accuracy an enlarged outline of the hob tooth form being checked. A powerful beam of light from an arc lamp is directed on to the hob, and through a magnifying objective on to the screen. The enlarged outline of the hob tooth is made to coincide with the outline on the screen, and measurements are then made to check taper, thread form, lead, and all other important dimensions. Magnifications from 25X to 250X are used, depending on the size of the thread being investigated, and in this way very minute errors are made clearly visible to the naked eye.

Gages Frequently Checked

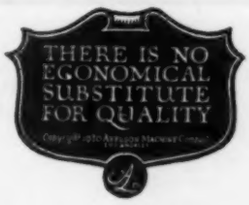
This department also maintains a complete set of Master Gages in order that the standards once approved may not be lost in the progress of time. These Master Gages are used only at very infrequent intervals in order to check the Shop Master Gages, and determine their acceptability. The Master Gages and the Shop Masters are as nearly duplicates as it is humanly possible to make them.

The Shop Masters are used to maintain the Shop Reference Gages, which in turn check the Working Gages to actually gage the product. Constant use of a gage will gradually wear its surface so that its fit will no longer be what it should. If some standard reference were not available it would not be long before parts made would no longer interchange with those manufactured a year or two previously. The effects of such careless manufacturing methods are not difficult to visualize.

This elaborate layout of testing machines and instruments above described has been installed with the idea of improving an already efficient product, and of developing new devices to reduce the cost of oil production. At first sight of the laboratory one is impressed with its spotless cleanliness, and the ideal working conditions available. Next one wonders how it can be made to pay, for that is, of course, the chief concern of the executive when authorizing any expenditure. That the laboratory will pay for itself, in fact is doing so every day, is certain when one considers the important part it plays in maintaining the quality of Hughes products, without taking into consideration its potential value in the probable development of future improvements. In this light, the laboratory might be called the "watch dog" of Hughes Quality and Progress.



Personnel Hughes Engineering Department



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Our whole story can be summed up in six words: Axelson Products Assure Cheaper Oil Production! Every oil field where pumping is required has its individual problems. Equipment of the most adaptable type must be installed. There must be pumps which are standardized and which can be depended upon to meet every emergency. . . . . Axelson Pumps ARE meeting every need! They are solving the difficulties of sand, shale, salt-water, gas, and extreme temperatures. They lift the oil from any required depth, economically and safely. In the extra deep wells of California more Axelson pumps are in service than any other kind. . . . . All parts of Axelson pumps are interchangeable—made in three types—shipped stript or assembled ready for installation. Sizes to fit 2, 2½, 3 and 4-inch diameters. Send for catalog today.

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Say you saw it in The Oil Weekly

CRUDE OIL PRICE QUOTATIONS FOR ALL FIELDS

Current Postings

EASTERN STATES

	Jan. 16 1925	Jan. 16 1924
New York Transit	$3.10	$3.65
Bradford (Pa.)	3.10	3.65
Other Pa. Grades	3.00	3.25
Cabel	1.45	1.60
Ragland	.90	.75
Corning	1.50	1.55
Somerset, medium	1.55	1.60
Somerset, light	1.70	1.80

CENTRAL STATES

Illinois	$1.37	$1.62
Indiana	1.38	1.63
North Lima	1.58	1.83
South Lima	1.58	1.83
Plymouth	.75	1.00
Princeton	1.37	1.62
Waterloo	.90	1.10
Wooster	1.50	1.70

WESTERN KENTUCKY

Posted by Indian Refining Company for crude from Allen, Warren, Franklin, Davies, Barren, Cumberland and Monroe Counties

36 and above	1.30	...
33 to 35.9	1.20	...
32.9 and below	1.10	...

CALIFORNIA

(Crude oil prices at well)

Los Angeles and Orange Counties

14 to 19.9 gravity	$1.00	$ .60
20 to 20.9 gravity	1.01	.61
21 to 21.9 gravity	1.02	.62
22 to 22.9 gravity	1.03	.63
23 to 23.9 gravity	1.05	.64
24 to 24.9 gravity	1.07	.65
25 to 25.9 gravity	1.10	.66
26 to 26.9 gravity	1.13	.67
27 to 27.9 gravity	1.16	.68
28 to 28.9 gravity	1.19	.69
29 to 29.9 gravity	1.22	.70
30 to 30.9 gravity	1.25	.71
31 to 31.9 gravity	1.28	.72
32 to 32.9 gravity	1.31	.73
33 to 33.9 gravity	1.34	.74
34 to 34.9 gravity	1.37	.75
35 gravity and above	1.40	.76
Fuel Oil	1.40	...

Rosecrans Field

36 to 36.9 gravity	$1.46
37 to 37.9 gravity	1.52
38 to 38.9 gravity	1.58
39 to 39.9 gravity	1.64
40 to 40.9 gravity	1.70
41 to 41.9 gravity	1.76
42 and above	1.82

MID-CONTINENT

(Prairie Prices)

Below 30 gravity	$ .75	$ ...
30 to 32.9 gravity	.90	...
33 to 35.9 gravity	1.10	...
36 and above	1.25	...

(Sinclair Prices)

	Jan. 16 1925	Jan. 16 1924
Below 30 gravity	.75	...
30 to 32.9 gravity	.90	...
33 to 35.9 gravity	1.10	...
36 and above	1.25	...

(Texas Company Prices)

Below 30 gravity	.75	...
30 to 32.9 gravity	.90	...
33 to 35.9 gravity	1.10	...
36 and above	1.25	...

(Magnolia Petroleum Co.)

Below 30 gravity	.75	...
30 to 32.9 gravity	.90	...
33 and above	1.25	...
Corsicana, light	1.25	...
Corsicana, heavy (at wells)	.90	...
Mexia	1.25	...
Thrall	1.00	...

NORTH CENTRAL TEXAS

(Humble Oil & Refining Co.)

Corsicana, light (Powell)	1.25	1.25
Mexia	1.25	1.25
Currie	1.25	1.25
Richland	1.25	...
Wortham	1.25	...

RANGER

(Humble Oil & Ref. Co.)

30 and below	.75
30 to 32.9	.90
33 to 35.9	1.10
36 and above	1.25

WICHITA AND ARCHER COUNTIES

(Texas)

(Humble Oil & Ref. Co.)

30 and below	.75
30 to 32.9	.90
33 to 35.9	1.10
36 and above	1.25

Moran Crude

30 and below	.75
30 to 32.9	.90
33 to 35.9	1.10
36 and above	1.25

SOUTH TEXAS

Mirando (Texpata)	.80	.75
Mirando (Magnolia)	.75	...

SOMERSET

(Grayburg Pipe Line Company)

26 gravity and above	.95	...
Below 26	.85	...

GULF COAST

Grade "A"	1.50	...
Grade "B" at Blue Ridge, Hull and Pierce Junction	1.25	...

LULING

All gravities	.90	...

LOUISIANA-ARKANSAS

Caddo

	Jan. 16 1925	Jan. 16 1924
38 gravity and above	1.35	...
35 to 37.9 gravity	1.25	...
32 to 34.9 gravity	1.15	...
Below 32 gravity	1.00	...

Homer

35 gravity and above	1.10	...
33 to 34.9 gravity	1.00	...
31 to 32.9 gravity	.90	...
Below 31 gravity	.75	...

COTTON VALLEY

All grades	.95	...

Haynesville

33 gravity and above	1.00	...
Below 33 gravity	.90	...

Bull Bayou

38 gravity and above	1.15	1.30
35 gravity to 37.9	1.00	1.15
32 to 34.9 gravity	.85	1.00
De Soto crude	1.20	1.35
Crichton	1.00	1.05
Bellevue	1.35	1.15
Jennings	1.50	1.25
Vinton	1.50	1.25
Edgerly crude	1.50	1.25

Smackover

Standard Oil Company of Louisiana
Louisiana Oil Refining Corporation
Gulf Refining Company
Shreveport-El Dorado Pipe Line Company

25 gravity and above	$ .95	...
Below 25 gravity	.85	...

Texas Company

25 gravity and above	$ .95	...
Below 25 gravity	.85	...

El Dorado

33 gravity and above	1.00	...
Below 33 gravity	.90	...
East Field (Calion)	.85	...

Stephens District

26 gravity and above	.90	...
Below 26 gravity	.70	...

WYOMING-MONTANA

Wyoming

Elk Basin	1.20	.95
Grass Creek	1.20	.95
Rock Creek	.95	.60
Lance Creek	1.15	.90
Mule Creek	.60	.45
Big Muddy	.75	.45
Salt Creek	.85	.60
Osage	1.15	.90
Hamilton Dome	.80	.95
Pilot Butte	.75	1.10
Lander	.20	1.10
Torchlight-Greybull	1.15	.95

Montana

Sunburst	.90	.70
Cat Creek	1.20	.95

CANADIAN CRUDE*

Oil Springs	2.30	2.08
Petrolia	2.23	2.25

*Bounty on Canadian crude is ¼ cent per gallon, or 26¼ cents per barrel.

BEHIND the Sinclair trade-mark are Sinclair's Refineries producing a line of oil products of high uniform quality—a quality that is maintained in every can, barrel or tank car showing the Sinclair trade-mark.

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PHILADELPHIA, PA. (under construction)

SINCLAIR OILS

Say you saw it in The Oil Weekly

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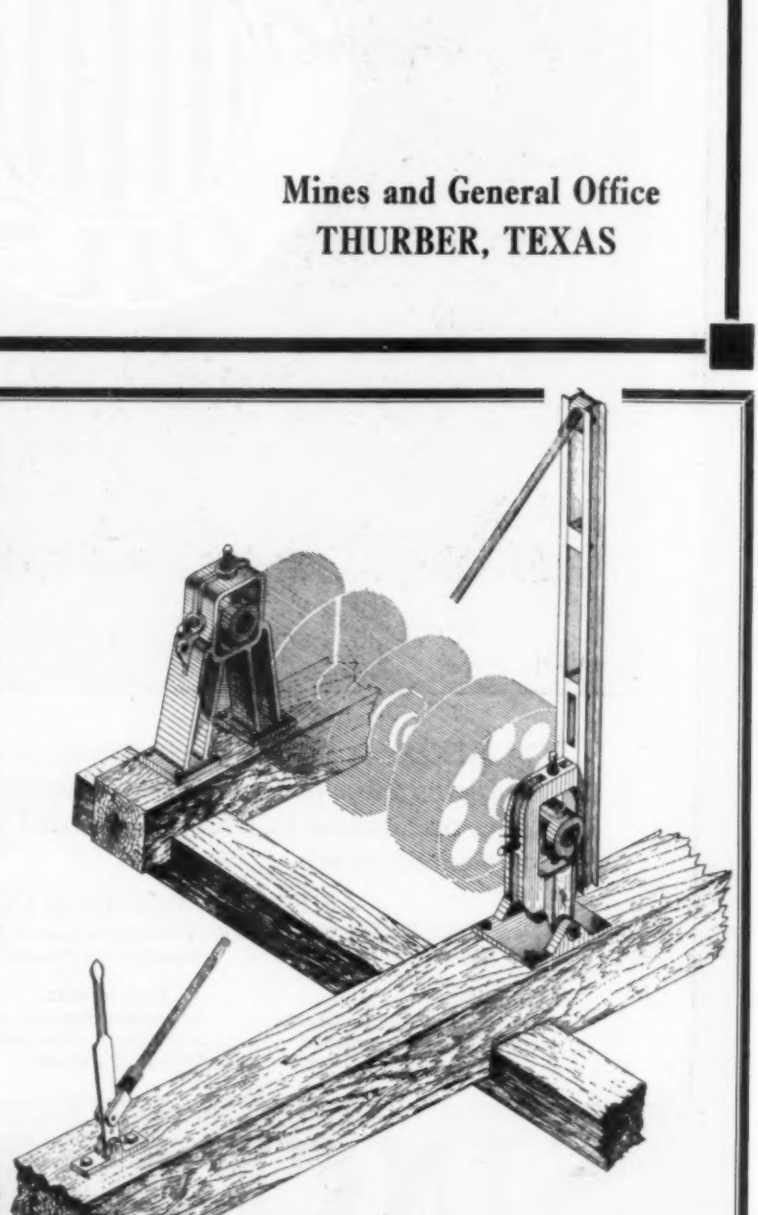


Say you saw it in The Oil Weekly

Won't Have Doherty's Conservation Plan

Institute committee named to work with President Coolidge's conservation board

By Grady Triplett
Staff Representative

In order to assure readers of The OIL WEEKLY of getting first hand information given out on any action taken by the Board of Directors of the American Petroleum Institute, Grady Triplett, Staff Representative, was sent to Atlantic City to give special attention to this meeting.

Following the A. P. I. meeting Mr. Triplett will go to Washington to take a look in on what Congress is doing with a number of oil legislative matters. His findings will be passed on to you in subsequent issues of The OIL WEEKLY.—The Editor.

Atlantic City, N. J., Jan. 13.—After deliberating two days, directors of the American Petroleum Institute this afternoon placed their stamp of disapproval on what has come to be known as the "Doherty Plan". This action, indicated by every move both during and previous to the meeting here, leaves Henry L. Doherty, promulgator of the plan, either to drop his recommendations or seek their adoption through the newly created Federal Oil Conservation Board.

Action on the Doherty Plan, organization of the committee on public relations and adoption of a resolution pledging the institute to work in harmony with the Federal Oil Conservation Board, comprised the accomplishments of the sessions here.

It may be said, however, that the sessions proved record breakers in the way deliberations were kept secret. Even the fact that the new committee on public relations is charged with the duty of establishing better relations with the public did not arouse the thought that the present meeting afforded an excellent opportunity for beginning that work.

The greater part of the sessions both Monday and Tuesday were devoted to listening to the reading of the recommendations of Henry L. Doherty, relative to changing the laws and methods under which oil fields are developed. Following this, the directors heard speeches in opposition to the Doherty recommendations. Then came general discussion of the question.

All this came to general opposition to the recommendations for in the end, Mr. Doherty was the only man present who favored his plan. The vote was useless, as the attitude of the directors had been recorded in their speeches. Mr. Doherty cast the only vote in favor of his plan. At first it seemed that the rejection would be recorded without reasons being given. Later, however, a committee was named to draft a resolution which gives the reasons the directors of the American Petroleum Institute have for not favoring the recommendations.

In rejecting the Doherty plan, the committee offered a resolution that expressed the common opposition. The resolution follows:

That it is the sense of this meeting that the plan submitted by Mr. Doherty for the consideration of this board, designed by him to solve some of the problems of the industry, will in the judgment of this board not solve those problems, among other reasons because:

First: We do not agree with his premises and we believe that the plan would not result in the production of more oil and gas than is produced under present methods.

Second: That the plan would eliminate the small producer and concentrate the production for the future in the hands of a few large operating companies.

Third: The plan contemplates the destruction of existing property rights.

Fourth: The plan presents practical operating difficulties so numerous that it is impossible for us as practical oil men to see how under it we could continue to furnish an adequate supply.

Although the data he brought before the directors here was much longer than the speech he delivered before the National Petroleum Marketers Association at Cleveland in November, it contained nothing additional. All the speeches Mr. Doherty had made favoring his plan as well as notes he had made were ready when the directors went in session Monday afternoon. Mr. Doherty presented much of this. When his voice became husky, others volunteered as readers and in this way those assembled heard the plan.

No Government Agency

If expressions, dropped despite the cloak of secrecy, are of value, the chief objection to the Doherty plan is that it would place the business of developing oil reserves under the supervision of a Governmental agency.

Mr. Doherty, however, takes the position that his plan is to keep the oil industry out of governmental hands rather than to put it in. He made no public expressions during the meeting of directors here and said he would have nothing to say until after he had weighed the reasons of the rejection, on which the resolution will be based.

Some conversation between sessions indicated that the directors did not consider that Mr. Doherty had come before the body with a completed program for changing the operating methods of oil fields. In one or two instances, opponents of the plan in speaking drew corrections from Mr. Doherty, who insisted his recommendations were not understood.

All consideration of the question was in good spirit. Mr. Doherty insisted on a hearing, following the annual meeting of the institute at Fort Worth. At that time Amos L. Beaty, president of

(Continued on page 142)

RESOLUTIONS ADOPTED AT ATLANTIC CITY

Whereas the President of the United States on December 19th, 1924, created a Federal Oil Conservation Board consisting of the Secretaries of War, Navy, Interior and Commerce to study the Government's responsibility with regard to the conservation of oil and to enlist the co-operation of representatives of the oil industry in its investigation,

And Whereas the American Petroleum Institute wishes to record its approval of the principles of co-operation bewteen Government and Industry, and its desire to co-operate with the Conservation Board,

And Whereas a full and intelligent discussion of the problems involved and collaboration of the part of the industry necessitate the collection and exhaustive study of many facts not readily available in order that the Institute may present constructive policies and avoid immature recommendations or unwise experiments, now, therefore,

Resolved, That the President of the Institute be requested to offer to the Federal Oil Conservation Board the cordial co-operation of the American Petroleum Institute.

Resolved, That the President of the Institute be and is hereby authorized to appoint a committee of eleven members, consisting of its President and General Secretary ex officio, and nine other members of the Institute, with power to appoint sub-committees, to collect the facts, to study the problems pertinent thereto and and to report its conclusions and recommendations to this board at a future meeting for its consideration and action,

And be it further Resolved, That the committee be requested to seek the views and co-operation of all branches of the industry.

Average Daily Production For All U. S. Fields

Oklahoma

Fields—	Past Week	Prev. Week
Tonkawa	96,320	100,500
Burbank	59 180	60,520
Bristow	50,050	50,285
Osage (outside Burbank)	35,290	35,825
Cromwell	34,635	34,615
Gilcrease-Papoose	27,415	28,950
Okmulgee	25,000	25,090
Cushing	22,820	22,965
Hewitt	17,545	17 955
Healdton	11,925	12,095
Wewoka	11,000	12,100
Duncan and Walters	8,220	8,460
Otoe	7,980	8 750
Stroud	2,735	2,640
Other fields	66,940	69,820
Totals	477,055	490,570

Louisiana

Haynesville	15,420	15,275
Caddo Light	9,300	9,010
Homer	6,920	6 975
Vinton	6,000	6,075
Cotton Valley	5,690	5,640
Bull Bayou	4,550	4,550
Bellevue	3,150	3,575
Caddo Heavy	2,320	2 275
Evangeline	700	750
Elm Grove	570	585
Edgerly	475	510
Lockport (Lake Charles)	450	500
Anse La Butte	20	20
Totals	55,565	55,740

Kansas

Greenwood	22,100	22,000
Eldorado	16 045	16,200
Rainbow Bend	8,150	8,000
Elbing and Peabody	7,810	7,820
Fox-Bush	4,560	4,600
Augusta and Douglas	2,990	3,000
Blankenship	2,675	2,690
Florence and Covert	2,315	2,320
Other Fields	20 700	20,000
Totals	87,345	86,630

Arkansas

Smackover Heavy	63 610	63,550
Smackover Light	31,960	29,710
El Dorado	10,370	10 410
Stephens	2,150	2,105
Irma	1,085	1,120
Totals	109,175	106,895

California

Los Angeles, Calif., Jan. 10.—The daily average production of the California fields the past week, compared with the previous week, with number of producing wells the past week, was about as follows:

	Last Week	No. Prod. Well	Prev. Week
Long Beach	122,000	502	124 800
Dominguez	62,000	43	62 500
Santa Fe Springs	52,000	345	52,500
Torrance	43,000	490	43,000
Huntington Beach	42 000	294	42,000
Rosecrans	8 500	16	6 900
Others	273,500		273,300
Totals	603,000		605,000

Wyoming-Montana-Colorado

Pipe line runs for the past week in the Rocky Mountain district declined appreciably over the previous week. Runs for both weeks are shown:

Fields—	Past Week	Prev. *Week
Salt Creek	45,470	45,780
Lost Soldier	4,190	5,470
Cat Creek	2,900	3,100
Rock River	2,800	3,200
Big Muddy	2,485	2 575
Grass Creek	2,420	2,765
Kevin-Sunburst	2,235	3,540
Teapot	1,380	1,400
Craig	1,000	1,100
Lance Creek	880	850
Fort Collins	700	715
Elk Basin	645	830
Hamilton Dome	490	460
Miscellaneous	450	500
Osage	345	350
Poison Spider	230	225
Lander	225	290
Florence	215	225
Ferris	115	110
Greybull	70	80
Pilot Butte	30	35
Totals	69,275	73,600

*Corrected Figures.

Texas

NORTH CENTRAL

Wortham	122.000	80,000
Corsicana-Powell	57,133	57 440
Archer County	39,520	36,765
Mexia	19,325	20,600
Electra	17 960	16,475
Stephens County	15,600	15 640
Burkburnett	15,285	14,990
Richland	11,600	12,900
Eastland County	11,065	10,945
Reagan County	9 065	9 230
Vernon-Wilbarger County	5,270	5,050
Young County	4,390	4,170
K-M-A and Iowa Park	3,895	3,715
Moran-Shackelford County	2 560	2,460
Currie	2,110	2,320
Mitchell County	1,820	1,915
Callahan County	1,510	1,575
Panhandle District	1,380	1,145
Brown County	900	905
Strawn-Palo Pinto County	670	695
Petrolia-Clay County	350	325
Coleman County	70	75
Thrall-Williamson County	50	55
Scurry County	45	45
Throckmorton County	35	30
Jack County	25	25
Totals	343,633	299 490

GULF COAST

Hull	15,200	15,600
West Columbia	12,600	12 600
Orange	12,000	9,950
Goose Creek	9,125	9,100
Humble	6,660	6,950
Sour Lake	4,000	4,000
Batson	1,600	1 620
Saratoga	1,490	1,460
Damon Mound	1,150	1,225
Spindletop	1,100	1,150
South Liberty	600	700
Blue Ridge	700	640
Pierce Junction	1,750	570
Big Creek	550	220
Markham	90	200
Barbers Hill	..	130
Stratton Ridge	15	..
Nacogdoches	30	110
Dayton	55	45
High Island	60	85
Totals	68 775	66,355
Luling	31,580	30,500
Mirando	13,670	13,500
Somerset	4,520	4,300
*Misc. South Texas	1,130	1,215
Totals	50 800	49,515
Texas Totals	463,208	415,365

*Includes Callahan, Rockdale and Minerva.

MEXICAN PRODUCTION

Estimated daily average production in the principal fields of Mexico during the week ending January 10 follows:

Field—	Barrels
Tierra Blanca, Chapapote Nunez and Alamo	57,000
San Geronimo and Tepetate Casiano	4,500
Petrero	6,000
Los Naranjos	7,500
Amatlan	17,000
Cerro Azul and Toteer	31,000
Total	123 000
Total Heavy Oil Production	242 000
Total Mexico	365,000

Condensed U. S. Production for Twelve Months

(Stated in Barrels)

This table is carried each week by The OIL WEEKLY, and shows daily production average for each state or section. Figures for Oklahoma, Kansas, Texas, Louisiana, Arkansas and Mountain States are compiled by The OIL WEEKLY, while estimates for California and Eastern States are furnished by the American Petroleum Institute.

Daily average for month	*Mid-Continent	North Central Texas	Texas Coastal	Texas Total	Kansas	Okla.	Louisiana	Eastern States	Wyo. Mont. and Colo.	Calif.	Ark.	U. S. Total
January (1924)	685,540	243,120	75,085	334,485	67,815	374,605	59,125	108,000	144,735	698,965	114,255	1,900,985
February	729,933	254,180	81,131	362,849	68,183	407,568	59,449	104,500	141,775	675,425	114,726	1,934,476
March	762,684	284,874	78,567	388,221	69,864	407,946	55,783	97,800	128,352	650,790	119,869	1,917,023
April	777,590	276,595	76,755	380,005	71,015	429,980	54,740	101,250	127,700	649,825	128,750	1,943,270
May	763,320	267,475	74,175	374,915	71,490	424,355	60,655	103,800	127,770	640,930	148,630	1,952,545
June	799,230	260,785	74,335	375,310	74,265	464,175	62,660	105,750	125,735	628,400	157,165	1,993,465
July	815,830	254,665	75,445	378,365	81,545	479,620	63,855	107,175	124,305	620,175	148,655	2,003,695
August	861,640	254,520	75,700	377,045	85,765	521,355	62,595	107,000	123,895	619,200	142,740	2,037,890
September	886,650	253,243	76,953	366,197	86,758	546,647	62,162	107,622	117,345	611,500	131,343	2,029,580
October	855,823	247,222	75,713	359,861	86 884	521,717	62,493	106,600	107,270	605,060	123,235	1,972,902
November	851,733	248,467	71,648	369.621	86,031	517,237	66,117	106,375	91,205	594,000	119,893	1,950,478
December	873,344	267,065	65,437	385,410	88,065	518,213	59 602	106,875	83,472	606,875	111,402	1,959,917
January 3	876,690	299,490	66,355	415,365	86,630	490,570	55,740	107,200	73,600	605,000	106,895	1 938,670
January 10	908,035	343,635	68,775	463,210	87,345	477,055	55,565	106,300	69,275	603,000	109,175	1,970,925

*Includes North Central Texas, Kansas, Oklahoma.

NOTE—Wortham, Corsicana-Powell and Mexia production included in North Central Texas.

Imports of Petroleum at Principal United States Ports

The following represents the total imports of crude oil by months with the current month given by weeks:

	Atlantic Ports						Gulf Coast Ports					
	Baltimore	Boston	New York	Philadelphia	Others	Total	Galveston	N. Orleans Baton Rge.	Port Arthur Sabine Pass	Tampa	Total	Total at All Ports
October	365,000	292,000	1,194,000	536,000	816,000	3,203,000	988,000	1,330,000	380,000	50,000	2,248,000	5,951,000
November	223,000	395,000	1,194,000	576,000	757,000	3,145,000	1,478,000	1,000,000	551,000	111,000	3,287,000	5,432,000
December	474,000	574,000	1,243,000	606,000	1,024,000	3,917,000	2,019,000	1,832,000	933,000	259,000	5,043,000	8,960,000
January, 1924	398,000	531,000	1,060,000	376,000	949,000	3,314,000	1,295,000	887,000	689,000	15,000	2,936,000	6,250,000
February	520,000	527,000	639,000	458,000	771,000	2,865,000	1,558,000	1,284,000	525,000	195,000	3,562,000	6,427,000
March	802,000	734,000	1,243,000	502,000	1,668,000	5,049,000	2,346,000	1,689,000	1,116,000	301,000	5,257,000	10,281,000
April	653,000	664,000	1,371,000	407,000	1,067,000	4,162,000	1,641,000	1,492,000	510,000	68,000	3,711,000	7,873,000
May	693,000	618,000	1,368,000	264,000	1,329,000	4,272,000	1,398,000	1,308,000	884,000	169,000	3,759,000	8,031,000
June	515,000	466,000	1,864,000	292,000	1,026,000	4,163,000	1,769,000	1,079,000	685,000	145,000	3,678,000	7,841,000
July	375,000	260,000	1,971,000	179,000	1,114,000	3,899,000	1,418,000	1,211,000	579,000	153,000	3,361,000	7,260,000
August	463,000	400,000	1,958,000	468,000	788,000	3,945,000	1,857,000	1,210,000	547,000	80,000	3,694,000	7,639,000
September	437,000	193,000	828,000	330,000	878,000	2,666,000	1,090,000	1,350,000	605,000	87,000	3,132,000	5,798,000
October	606,000	299,000	1,140,000	402,000	546,000	2,993,000	1,027,000	1,190,000	492,000	130,000	2,839,000	5,832,000
November	851,000	375,000	2,047,000	709,000	1,108,000	5,090,000	1,695,000	1,631,000	404,000	85,000	3,815,000	8,905,000
December	733,000	113,000	1,192,000	396,000	1,002,000	3,436,000	976,000	1,589,000	338,000	228,000	3,131,000	6,567,000
January 3	80,000	.....	305,000	102,000	154,000	641,000	294,000	409,000	195,000	70,000	968,000	1,609,000

NOTE—Figures by American Petroleum Institute.

Receipts of California Oil at Atlantic Coast Ports

The following shows the receipts of California oil at Atlantic Coast ports by months with the current month given by weeks:

	Atlantic Ports						Gulf Coast Ports					
	Baltimore	Boston	New York	Philadelphia	Others	Total	Galveston	N. Orleans Baton Rge.	Port Arthur Sabine Pass	Tampa	Total	Total at All Ports
October	779,000	224,000	2,503,000	779,000	429,000	4,714,000	.....	746,000	.....	.....	746,000	5,460,000
November	591,000	155,000	2,302,000	584,000	271,000	3,903,000	.....	935,000	.....	.....	935,000	4,838,000
December	454,000	215,000	2,901,000	813,000	753,000	5,136,000	.....	729,000	.....	.....	729,000	5,213,000
January	619,000	77,000	3,156,000	659,000	503,000	4,660,000	.....	615,000	.....	.....	615,000	5,275,000
February	326,000	145,000	2,811,000	842,000	75,000	4,199,000	.....	810,000	.....	.....	810,000	5,009,000
March	298,000	77,000	3,352,000	989,000	413,000	5,129,000	.....	.....	.....	.....	.....	5,129,000
April	170,000	77,000	2,633,000	378,000	224,000	3,482,000	.....	.....	.....	.....	.....	3,482,000
May	190,000	147,000	2,771,000	411,000	273,000	3,792,000	.....	315,000	.....	.....	315,000	4,107,000
June	522,000	147,000	2,490,000	443,000	220,000	3,822,000	.....	.....	.....	.....	.....	3,822,000
July	167,000	70,000	2,017,000	374,000	188,000	2,816,000	.....	75,000	.....	.....	75,000	2,891,000
August	400,000	.....	2,914,000	288,000	520,000	4,354,000	.....	30,000	.....	.....	30,000	4,384,000
September	290,000	148,000	2,737,000	327,000	81,000	3,583,000	.....	.....	.....	.....	.....	3,583,000
October	378,000	217,000	2,338,000	379,000	160,000	3,472,000	.....	.....	.....	.....	.....	3,472,000
November	512,000	223,000	1,676,000	163,000	160,000	2,734,000	.....	.....	.....	.....	.....	2,734,000
December	253,000	74,000	1,713,000	369,000	81,000	2,490,000	.....	93,000	.....	.....	.....	2,583,000
January 3	293,000	.....	262,000	27,000	80,000	662,000	.....	93,000	.....	.....	.....	755,000

NOTE—Figures by American Petroleum Institute.

THE ROLAND OIL COMPANY

BRISTOW, OKLA.

A. A. ROLLESTONE
Chairman of the Board

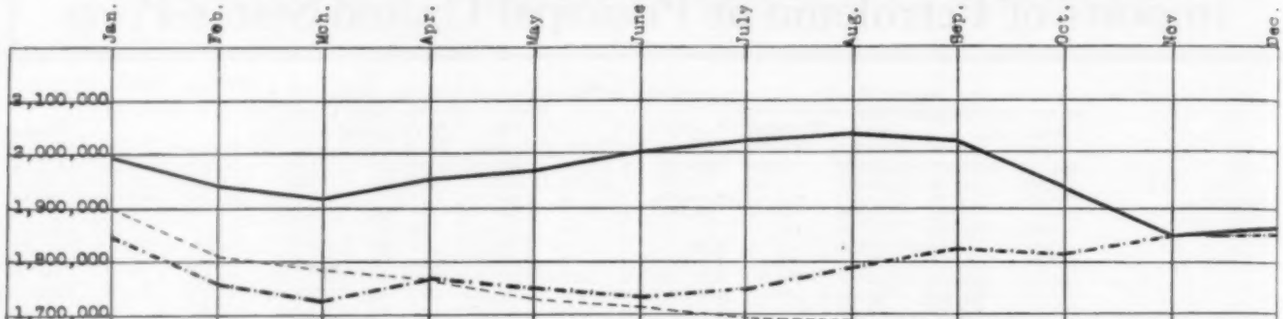
C. L. FREELAND
President

E. H. ROLLESTONE
Vice-Pres. and Treas.

W. O. STROTHER
Secretary

J. H. RIGGS
Ass't Secretary

A PICTURE OF THE ESTIMATED AND THE ACTUAL



The solid line shows the production trend for 1924. The two dotted lines are the forecasts made by statisticians at the beginning of the year, as explained in the text below.

Statistical Forecasts Widely Miss Mark

Last year they foretold how the production trend would go; chart shows how they missed

TO quote from the Statistical Edition of The OIL WEEKLY covering 1923, dated January 19, 1924:

At the request of The OIL WEEKLY, two statisticians, who enjoy rather good reputations, have consented to prepare each an estimate as to what the probable trend of oil production in the United States will be. Necessarily, such estimates are largely guesses, but they are guesses based upon every bit of available information which two widely known organizations have at hand. They do not agree in detail, but they do agree to a more or less substantial slump in production.

Inasmuch as no oil publication, or oil company, either, for that, has ever presented the production curve projected a year ahead, each of these statisticians reminds us that it is human to err, and that they didn't care to stake their reputations on a forecast that far ahead.

To which we replied that it would be interesting to the industry and the public at large to see how close a statistician could come to the real figures as much as a year ahead, and that certainly it would be interesting to have these estimated figures when both were considered authorities who have every facility of gathering as much advance information as possible. In the instance of one of the estimates with which The OIL WEEKLY'S editor happens to have a rather close touch, the figures shown represent information gathered from a number of the best informed oil company statistical departments in the United States, and we feel fully confident as to the news gathering value of the other statistician.

The name of the statistician who comes close to the actual figures (if he comes close enough) will be printed in next year's Annual Statistical Edition.

The chart reproduced above shows the two estimates in question and the actual results of the year. The dotted lines are the estimates and the solid line the actual performance of the fields. The heavier broken line, it will be noted, shows that one prophet had an insight on the trend during the first four months of the year, although his sights were a little low. He also guessed quite closely how much oil would be produced in November and December. But how badly he missed in intervening months is more forcibly written with red ink on some ledgers.

The grace of our reservation that we would name this closest prognosticator only in the event he was close enough, permits us leaving both guessers in the anonymity they probably prefer under the circumstances.

All of this does not mean much, except for what it proves:

The two statisticians quoted had available to them the complete data of some of the largest and most vitally interested oil producing and refining organizations in the world. And it is proven quite conclusively that no single unit or reasonable group of units can settle upon what the oil business will do in advance of its doing it.

Indian Land Leases Made More Like Commercial Form

Washington, D. C., Jan. 12.—The Interior Department has adopted a new uniform type of lease form applicable to oil and gas leases on restricted allotted Indian lands, it has been announced. The new form will take the place of three different forms heretofore used, one applicable to lands of members of the Five Civilized Tribes, one to lands on the Kiowa Reservation, and the third applicable to all other restricted allotted lands.

It is stated that the form will contain provisions more advantageous in many respects to both lessor and lessee; in addition it will have the advantage of conforming to commercial oil and gas leases so far as the basic difference between the two classes will permit.

George Shouldis, driller in the Burbank field for the Carter Oil Company, has been transferred to central Bolivia, where he will represent the company as a tool pusher. Shouldis is the fourth man sent by the Carter Oil Company to Bolivia.

Standard Oil Company Big Louisiana Tax Payer

Baton Rouge, La., Jan. 10.—Not only is the Standard Oil Company (Louisiana) the largest taxpayer in Louisiana but the assessed valuation of the company's properties in the East Baton Rouge parish is fully 25 per cent more than the assessed valuation of the entire city of Baton Rouge. This valuation of the Louisiana corporation is placed at $41,000,000.

The company's tax bill for state, parish and district taxes on the East Baton Rouge properties is approximately $579,604 annually, or at the rate of about $1.10 per minute for every day in the year. The company has extensive holdings in other parishes in Louisiana, and also in Arkansas.

Mexico City, Mex., Jan. 6.—It is understood that Major General R. L. Bullard, who is to retire from the United States army, will become representative in Mexico of the Standard Oil Companies.

California 33,000,000 Barrels Off

Shipments to East will be light during 1925 as Western plants will require the oil

By W. E. Green
Staff Representative

Los Angeles, Calif., Jan. 10.—During the past year, California did not make similar history to the previous year, but the production during 1924 was approximately 230,000,000 barrels against 263,728,000 barrels the previous year, when the grand total broke all records for the state. The decline the past year was not as great as many of the experts expected it to be. Long Beach, Santa Fe Springs and Huntington Beach held up far better than had been expected. And some of the estimates now being made covering 1925 may err along the same line.

Various estimates made in Los Angeles the past ten days on the probable production of the California fields during 1925 range from 525,000 to 585,000 barrels as the daily production next December. Rosecrans and Dominguez have them worried. Some think that Dominguez will hold up well throughout the year, as the field was not closely drilled and is tightly owned by five companies. These companies are observing closely an agreement not to drill deeper than 400 feet into the pay formation and the wells are far apart. But when it comes to estimating what Rosecrans will do, the guesses are purely hunches. No one knows and can guess anywhere close to what the field will do.

A 1925 Estimate

The writer estimates that the fields of the state during 1925 will produce approximately 215,000,000 barrels of oil, provided nothing spectacular happens to wreck the figures. It is possible that a new field will be developed, which may bring about a big drilling campaign. It is possible, but hardly probable, that the northwest area of the Rosecrans field will develop into a real oil field. Only wells now drilling can decide this.

Wildcat Activity

There are about 100 wildcats drilling in the state at this time. It is the general opinion that about as many wildcats will be drilled in the state during 1925 as in 1924, and there is a possibility that more will be drilled. Many thousands of acres of wildcat acreage are held under lease by numerous oil companies and if things are dull in the fields it is possible that they will become quite active in drilling wildcats, especially if they think there will be a shortage of oil in the next two or three years. In California, many wildcats are often drilling from one to two years before being abandoned or placed on production.

Another matter of prime importance to the producers of California is the certain decline of movement of oil and products through the Canal to foreign and Atlantic ports during the coming year. During the past year, an average of 3,407,086 barrels of crude moved through the Canal from Los Angeles harbor each month, or a daily average of 113,900 barrels daily throughout the year. During the year some crude was shipped to Mexico and this will likely continue. But during 1924, a large portion of the crude going through the Canal was shipped by the Standard of California to the Standard of New Jersey. This contract expired January 1, just past, and has not and will not be renewed, according to general reports.

One Contract Continues

The Associated Oil Company also allowed two contracts to expire without renewing. The California Petroleum will continue to ship around 21,000 barrels a day the coming year to the Standard of New Jersey, filling an old contract, but it is understood that in the future the California Petroleum will ship tops in the place of crude. The California Petroleum is now operating its refinery, tops the crude, ships the tops and sells the fuel oil on the West Coast.

On account of the California companies refusing to renew contracts on the terms offered, the movement of California crude through the Canal will show a very healthy decline, at least for the early part of the year. Later, if the Mid-Continent crude price stiffens considerably, and if the Atlantic coast buyers are willing to pay the price asked, shipping may be resumed. But in the meantime, the crude heretofore shipped East will have to go into storage in California. For this year it is estimated that California storage will show a continued increase for the next six months at least. There is a bare possibility that adding to storage will continue even longer.

Los Angeles, Calif., Jan. 12—First break among big five in months came this week when it was learned that Pan American Petroleum Company was offering ten cent premiums in Torrance and Rosecrans fields. Rumored that company makes similar offer in other Los Angeles fields. It is not thought that other companies will permit breaking of connections without fight and if Pan American succeeds in getting many contracts raise in price would not be surprise.

400,000 Barrels to Refineries

California refineries can be expected to run to stills approximately 400,000 barrels a day. Shipments to England by the Shell Company, a small movement to Mexico, the California Petroleum shipments and all other possible movements could hardly make the total greater than 550,000 barrels a day. There is every indication that production will exceed this amount by from 25,000 to 50,000 barrels a day through most of the year. For that reason no one can see any chance of not constantly adding to storage through most of the year. Naturally the consumption on the Pacific Coast will show some increase during the coming year. There is a possibility of shipments of petroleum products to Pacific foreign territory will show an increase. If this feature should be very favorable, the stocks might remain about stationary beginning in the next four or five months.

But California operators are not worried. They feel that prices in other sections of the United States will show steady advances. They feel that Wortham will have done its worst by the middle of February and that the production in that field will decline almost as fast as it went up. They feel that when Wortham hits the toboggan proper, that the Mid-Continent prices will jump in a hurry, provided no other big fields are brought in. They feel that Kansas and Oklahoma production will about hold its own during the coming year, and that Texas will decline after March 1. All this leads to the feeling that demand for oil will be fair in March and April and that the summer demand will be considerable, due to increased consumption and a much better foreign business.

Empty Storage

California has about 20,000,000 barrels of empty steel and concrete reservoir storage at this time, that has been built, paid for and can be utilized to a great advantage by being filled up with cheap oil and held for a better market. In this way the storage already paid for can be made to pay for itself. Pan American interests are now building a pipe line to the Naval Reserves and this line can be utilized in bringing the heavy crude of the northern part of the state to Los Angeles district to the doors of the many refiners. It is not expected that any other line will be

built in the state during 1925 and there will not be much additional storage built. In some instances, storage was overbuilt during 1924, and they are willing to fill it up. Probably two companies are in need of additional storage very badly at this time, but it is likely they will be able to handle the situation without building.

28,000 Barrels Closed In

During the past month, the Shell Company closed in 2000 barrels additional daily production at Coalinga, bringing the total shut in production in that field to about 14,000 barrels, daily. About 4000 barrels daily production is closed in at Brea, another 4000 barrels at Santa Maria, still another 4000 barrels at Lost Hills-Belridge and about 2000 barrels, miscellaneous. If late in the year, production declines faster than some expect, it will be no job to open these shut in wells and the daily average for the state will be held up.

In addition to the shut in production just mentioned, there are many wells which have been produced and are off production for various reasons in the Los Angeles Basin, which could to a large extent be restored. At Torrance, there are 165 wells on production at one time and which are now idle. Of course all of these wells could not be restored. But at least half of them could. In many instances they are owned by small companies who have no money for experimenting and working them over.

85 Idle at Santa Fe

At Santa Fe Springs there are 85 idle wells, formerly on production. Five-eighths of these wells are owned by smaller companies and small independent operators. Quite a number of these wells could be brought back. At Long Beach, 87 wells are off production, while 50 wells are off production at Huntington Beach. Counting wells off in other smaller fields, there is a total of 400 wells which formerly produced and which are off now for various reasons. Some of them are drilling deeper, some are plugging back to produce from the sands passed up at first, others being worked over and still others that quit producing and the owners have no funds to work them over.

Probably 100 of the total of 400 are dead to all purposes and will never be touched again. If the price should advance, oil men would restore some of these wells. In recent weeks, a number of deals have been made where an oil man would take over a well, restore it to production, take his expenses from the first production, and share in the production afterwards. This practice will spread if the price of oil advances.

Los Angeles Basin Fields

The Los Angeles Basin fields have settled in production and the declines are not expected to be large. At Long Beach, the production at this time is around 120,000 barrels against 244,527 barrels daily in October, 1924. It is expected that by the end of 1925, the production of Long Beach will be down to 80,000 to 90,000 barrels daily. Santa Fe Springs daily average production is down to about 52,000 barrels against a peak daily average of 322,522 barrels in August, 1923. The production of this field will likely be down to 40,000 to 45,000 barrels next December. Huntington Beach production has hung around 40,000 to 42,000 barrels daily for the past several weeks, showing little change, against a peak production of 110,228 barrels daily in July, 1923.

Torrance Declining

The daily average production at Torrance early this month was 43,000 barrels, after playing between that point and 45,000 to 47,000 barrels a day for several weeks. This field had its first production to be counted in June 1922, and reached its peak in May, 1924, with a daily average production of 57,538 barrels.

The first well was placed on production at Dominguez in September, 1923, and reached a daily average production of 32,576 barrels in October, last year, and early in January, this year, was producing at the rate of 62,000 barrels a day. It is expected to reach its peak in about six weeks, and after that will begin to decline. Some estimate that the field will be producing around 50,000 barrels next June.

Expect Good Year

California expects a good year, an advance in price is expected before midsummer, but no frenzied drilling campaigns are expected in the state during the year. At the same time it is expected that almost as many wells will be drilled as during the past year. There will likely be a decline in the number, but not very great. California operators feel that they will never again be off to themselves—that the situation in the East will affect them, as it has during the year just passed. They watch conditions in other sections of the United States closer than ever before—they learned it was necessary the past two years.

700-Barrel Well at Brea

The Brea Canyon Oil Company completed a new well in Brea Canyon Sunday for 700 barrels of clean oil at about 4000. Casing pressure is 670 pounds and tubing pressure 280 pounds and flows through half inch bean. Well is in a field that has been producing for nearly 25 years.

Telephone Service to Tampico

Mexico City, Mex., Jan. 8.—Of interest to American oil companies operating in Mexico is the announcement that direct telephone connection between Tampico and the United States is to be commenced. A contract providing for the establishment of long distance connections has been concluded.

Tulsa, Okla., Jan. 14.—The Robinson Tool Company of Tulsa, has recently made a carload shipment of R. & R. sucker rod hanger structures to the Gypsy Oil Company in Oklahoma.

Government Claim to Oil Rights in Louisiana Denied

Washington, D. C., Jan. 12.—The Supreme Court of the District of Columbia has upheld over the appeal of Secretary of the Interior Work, an injunction asked by W. H. Mason of Louisiana, to prevent the Interior Department for licensing or issuing oil prospecting permits to various parties for exploitation of the property known as the Dolet claim in the Baton Rouge land district.

The appellate court decided that the land does not belong to the United States and the department is wholly without authority to interefere with Mason in his possession or to cloud his title by granting licenses to prospect for oil.

Mid-Continent Association Meeting

Tulsa, Okla., Jan. 14.—The annual general membership meeting of the Petroleum Safety Council of the Mid-Continent Oil and Gas Association will be held at the office of the association, 505 Cosden building, on Tuesday, January 20, 1925, at 10:00 a. m.

Election of officers for the current year and the adoption of a proposed safety program for 1925 will be the most important topics discussed at the meeting.

Mutual Will Change Name to Continental

Denver, Colo., Jan. 10.—A special meeting of stockholders of Mutual Oil Company has been called for January 27 at Portland, Maine, to vote on a proposal to change the company's name to the Continental Oil Company and to change the par value of the former's shares from $5 to $10.

Continental Oil and Mutual Oil merged some time ago. The former company is largely a marketing organization with facilities throughout the Rocky Mountain territory.

It also is proposed to erect an office building here to house the Mutual Oil Company and its subsidiaries. While nothing official has been given out by company executives, it is understood that the building will be several stories in height and will be modern in every respect. The Continental Oil Company owns a six-story building here which it purchased some years ago, but this structure is said to be inadequate for housing both Continental and Mutual, now that they have consolidated.

Driller Killed in First Serious Wortham Accident

Wortham, Texas, Jan. 8.—Death took its first toll from the Wortham boom Thursday when F. W. Woods, driller for Schubert & Scott, was killed instantly when a mud hose broke loose and struck him on the head.

Mr. Woods, whose relatives live in Humble, Texas, was about 55 years old at the time of his death.

Crude More Firm; Wortham Less Menacing

Drafts made on storage indicate possible price advance in near future; gasoline moving in volume

CONTINUED demand for crude oil is being reflected in increasing drafts on storage and this coming at a time when production in the Wortham pool is mounting almost daily may be taken as additional indication that the crude price structure is basicly sound and augments within the near future an upward revision in prices, not only in the Appalachian region but in the Mid-Continent and Middle Western grades.

Consumption is holding up and the movement of refined products, especially motor fuel, is pointing the industry to an era of improved business conditions. It is significant that in November crude oil stocks the country over were drawn on to a larger extent than at any time during the last five years, the month's draft on accumulated oils averaging around 90,000 barrels daily. Stocks of both the Prairie and Sinclair in the Mid-Continent are being drawn on at this time, the former company more than the latter.

Premiums continue to be paid both in the Mid-Continent and in the Pennsylvania regions where independent refiners are seeking new contracts at a figure that represents a considerable bonus above the posted price level of the larger purchasing agencies. One large producer in Oklahoma recently was approached by a pipe line company with a proposition to purchase his oil that involved an out-and-out exchange of money. This company is after new connections as are other of the larger buyers in the field.

In the Rocky Mountain section the completion by the Midwest Refining Company of its test to the Lakota sand in the Salt Creek field in Wyoming is significant. This well which is located in section 35-40-79 on a lease of the Mountain Producers Association has reached the top of the Lakota sand and when still drilling into the pay flowed at an estimated rate of around 4000 barrels with considerable gas. This well apparently proves that the Lakota sand at an average depth of around 3000 feet is another productive horizon and may completely revise production estimates for the section when sufficiently developed to determine its extent and thickness. The Mountain Producers Association and the Salt Creek Producers Association hold virtual control of the heart of the Salt Creek field and likely will benefit the most from the Lakota discovery. Both of these companies dispose of their crude oil to the Midwest Refining Company.

Cold weather has materially reduced shipments of crude oil from the field in sections of the Rocky Mountain states, notably in the Kevin-Sunburst field in northern Montana, where the Ohio Oil Company is the principal purchaser. Because of this there is some talk among producers in the area that an advance in this grade would not come unexpected.

Wortham's Influence Waning

The dominating influence of the Wortham field on the Mid-Continent district crude market was partially shattered during the past week when the completion of a number of dry holes on both sides of the producing structure definitely proved that it will average considerably less than 2000 feet in width, while the drainage already taken place is cutting down the initial output of new wells to a noticeable extent. Numerous completions made on practically proven locations within the past seven-day period boosted production to the 160,000 barrel level early this week, and a higher production is to be expected for the next week or two by reason of a large number of wells scheduled for completion in rapid succession. The field has not registered an extension in length in more than ten days, and the northeast end offers the only chance for an important amount of new territory to be added to the producing structure.

Crude buying agencies serving Wortham producers and producing companies that contracted for large tank farms are entering into active competition for new connections in the field, as the latter have overbuilt their storage requirements and are seeking outside oil to help fill the tanks with crude, while the buying agencies shipping from the field via pipe lines and tank cars are taking all oil available in anticipation of a crude rise about the time the peak is reached at Wortham. The flush production at Wortham will not fulfill the original expectations of producers that have contracted for steel storage tanks, and small premiums are now being offered above the posted price for crude at the well by some of these tank owners for oil to help fill storage, while water and gas for drilling purposes serves as a bonus indirectly in getting outside connections in the field, as has been previously reported.

Wortham is also attracting crude buyers representing refiners on the Atlantic Coast and Mid-Continent district, and premiums are paid above the delivery charges. The Simms Oil Company is probably the first producer in the field to command an attractive premium on a large crude order, and has contracted to deliver about 300,000 barrels of Wortham crude during January and February to the Beacon Oil Company of Boston, Mass., with a tentative contract pending for additional crude beyond that period. Simms is delivering this crude via tank cars to tanker docks of the United Central Oil Corporation at Houston, where it is loaded in tankers.

The strength maintained by the crude market at Wortham in the presence of a steady climb in daily production is reflecting a favorable outlook for the Mid-Continent crude market, and premiums on spot crude in the North Texas district were higher during the past week. Oil production in the North and Central West Texas fields has been below normal for the past three weeks, owing to the effects of the cold weather, while a limited supply of water is placing restrictions on many operators in the North Texas district. Gulf Production Company has completed a 24-mile four-inch water line from its reservoir on the Wilson ranch in upper Archer County to provide water in carrying out its drilling program in the southwest part of the county, and may also sell water to other producers in return for the rights to buy crude at the posted price. Gulf is drilling 14 tests in Archer County, and is starting eight additional ones this month.

Refined products remained firm throughout the past week, and export buyers are still in the market for high gravity gasolines. The Atlantic Refining Company has increased its gasoline purchases made within the past 30 days from North Texas, Group Three and Shreveport refiners to about seven million gallons, with the bulk of this coming from independent refiners in North Texas. Deliveries are to be made to the Gulf Coast over January and February, and a number of plants have contracted for their entire output of special grades of motor fuel through February to Atlantic. Fuel oil is holding its strength, and refiners are anticipating stronger prices by reason of several huge fuel contracts expiring during the next two months.

The trend in California is shown by the announcement of a small premium offered by the Pan American for oil in the Los Angeles area. It is expected that this move will result in a price advance for the reason that the five major purchasers in that district are known not to be in favor of giving up any connections.

New Kansas Companies

Topeka, Kan., Jan. 10.—Companies recently granted charters in Kansas include the Maxwell Petroleum Company with a capital of $100,000, and the Central West Petroleum Company with a capital of $60,000. Both companies have headquarters in Wichita.

The Cressler Petroleum Company, also of Wichita, has filed notice of decrease in capital stock from $200,000 to $20,000.

Won't Have Doherty's Conservation Plan

(Continued from page 135)

The Texas Company, assailed the Cleveland speech of Mr. Doherty. Thomas A. O'Donnell, ex-president of the institute, also opposed the Doherty plan in his address at Fort Worth.

Both these men had opportunity to further express their views during the meeting of directors here. Their replies to the reading of the Doherty data carried the bearing of a debate. Later, general discussion brought the affair to a one sided session.

The Doherty Plan

Nothing that was said during the meeting was made public, but in his Cleveland address and in previous utterances, Mr. Doherty has outlined his plan explicitly. His first claim is that the petroleum industry is laboring under some basic evils. His cure for these is uniform development of properties. He contended at Cleveland that the laws governing development of oil properties had been made when knowledge of oil and drilling was meager, resulting in improper statutes and precedents under which oil fields are drilled.

While his recommendations cover much more ground, the core of the plan is that field development should be carried on through a common agency, owners of oil rights sharing in the output of a field proportionately and without regard to what wells or leases produced the oil.

A singular feature of the consideration of the Doherty recommendations was that on Monday executives of the various oil companies received the set of questions sent out by the new Federal Conservation Board. Some of these questions touched on the issues raised in the consideration of the Doherty plan.

While deliberations of institute directors touched on the new Federal Oil Conservation Board only in the resolution pledging support and the committee named to give the support, it was evident that the step of President Coolidge in naming such a board has evoked some serious thought among leaders of the industry. Receipt of the board's questionnaire was the first evidence of what information it will seek before tanking any action. Incidentally the set of questions are sufficient to keep corps of experts working for months before the answers can be given correctly. Some of the questions are such that each answer will be only the opinion of the individual giving the answer. Other of the questions are duplicates of those the men of the oil world have been asking themselves for year after year. So far they have never found satisfactory answers.

Conservation Committee

The committee that will represent the American Petroleum Institute in working with the Federal Oil Conservation Board is composed of J. Edgar Pew, President of the Institute, and R. L. Welch, its Secretary, both ex-officio members; K. R. Kingsbury of the Standard Oil Company of California; D. M. Folsom, General Petroleum Corporation; W. S. Farrish, Humble Oil and Refining Company; E. W. Marland, Marland Refining Company,; William N. Davis, President, Mid-Continent Oil & Gas Association; George S. Davison, Gulf Refining Company; J. C. Donnell, Standard Oil Company of Ohio; E. T. Wilson, Mutual Oil Company, and Frank Haskell, Tidewater Oil Company.

Among those here for the sessions of the board were: W. S. Farrish, P. M. Miskell, C. L. Suhr, D. S. Ewing, W. M. Irish, George M. Crawford, J. M. Sands, E. W. Clark, D. M. Folsom, T. A. O'Donnell, F. D. Henderson, Henry L. Doherty, Edward Prizer, E. W. Marland, T. P. Geyer, John E. Hale, O. P. Keeney, A. C. Bedford, John H. Markham, Jr., J. W. Van Dyke, J. Howard Pew, Amos L. Beaty, J. A. Moffett, Jr., J. Edgar Pew, K. R. Kingsbury, J. C. Donnell, Robert W. Stewart, Harry F. Sinclair, W. G. Skelly, A. E. Watts, F. A. Pielsticker, Howard Bennette, Harry H. Smith, L. V. Nicholas, H. G. James, and Frank Phillips.

Public Relations

After more than a year of preliminary work, something tangible in the way of creating better relations between the public and the petroleum industry became evident Monday. The committee, authorized at the meeting of the American Petroleum Institute in Fort Worth last month, was organized today. It is charged with the duty of formulating a plan for carrying the case of the petroleum industry before the public.

This committee is composed of nine members from the board of directors of the institute, with one member from each of the associations and organizations within the industry. William N. Davis, president of the Mid-Continent Oil & Gas Association, was chosen as chairman of the committee.

He announced at the close of the session that a sub-committee of five would be named later to work out details of the plan for the whole committee to follow. This sub-committee has not been named and no date has been set for a meeting of its members.

One of the duties of this committee will be that of raising funds for carrying on publicity and advertising necessary to reaching the public. The resolution adopted by the institutes directors at the Fort Worth meeting, gives the committee authority to raise a fund of one hundred thousand dollars each year for three years. This money will be raised by subscription within the industry.

The organization of the committee here is the outgrowth of efforts started

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R E S U L T S

more than a year ago. At that time leading men of the industry considered it wise to take the public into confidence regarding facts and conditions of producing, refining and distributing petroleum products. Later different associations went on record as favoring such a program. Then the institute was asked to foster the plan. This did not meet with unanimous approval of its directors or membership at first. But at the last annual meeting, the directors approved a plan, which is now to be put in practice.

Committee Named

The following men are committee members, representing the Board of Directors of the Institute: William N. Davis, President of the Mid-Continent Oil & Gas Association, Committee Chairman; J. Howard Pew, President of the Sun Oil Company, Vice Chairman; Paul Shoup, Pacific Oil Company; K. R. Kingsbury, Standard Oil Company of California; B. B. Brooks, former Governor of Wyoming; C. C. Herndon, Skelly Oil Company; E. C. Lufkin, The Texas Company; J. A. Moffett, Standard Oil Company of New Jersey; Edward Prizer, chairman of the board of the Vacuum Oil Company.

Committee members representing trade associations of the petroleum industry are Harry H. Smith, Secretary of the Mid-Continent Oil & Gas Association; F. A. Peilsticker, President, Western Petroleum Refiners Association; D. E. Buchanan, President Association of Natural Gasoline Manufacturers; W. H. Gray, President Independent Oil Producers Association; L. V. Nicholas, President National Petroleum Marketers Association; H. G. James, American Oil Mens Association; A. C. McLaughlin, Chairman California Bureau of Mining and Oils; O. P. Keeney, President National Petroleum Association.

Oil Conservation Board Sends Out Questionaire on Production and Use

Opinion varies among some of the leaders in the industry who have received a questionnaire sent out Sunday from Washington, by Secretary of the Interior, Herbert Work as Chairman of the Federal Oil Conservation Board, in which an expression of views is asked as to the most effective measures for conserving the petroleum resources of the country. While those who have received the questionnaires are not making any official statements as to its merits or demerits, some of them feel that Secretary Work's proposal is entirely frank and offers an opening for a clear presentation of the oil industry's problem.

The communication has been sent to a number of outstanding men in the business and the following is an official copy:

Under the instruction of the President this board invites the full co-operation of the oil industry, instituting the complex problem presented by the present situation. The members of the board feel their full responsibility in matters of national security and industrial prosperity, but realize also the large interest felt by the representatives of the oil industry. Because these responsibilities have much in common, cooperative effort is highly desirable.

The primary object of this study under government auspices is elimination of waste.

It is the purpose of this board to conduct this inquiry so far as possible as a cooperative study to which representative oil men must be the largest contributors. The opportunity is here for the men who know the facts to come forward and suggest safe lines of remedial action.

For general guidance in formulation of sugestions we would be glad to have your views on subjects as given below:

1. Generally, in what directions do you consider that waste in production could be reduced and stabilization effected?

2. What is your estimate of over production, if any, at this time?

(a) If there is over production, what is it costing the industry in expense of storage, in dumping of surplus in the fuel market, or in other ways?

(b) What are the underlying causes of such over production and the remedies?

(3) With the present day development of technique for finding oil and for producing oil at a rate never before attained, how can the brakes be put on the bringing in of new pools and needed production?

(a) What can be done in exploration of new pools, or fields, without exploitation until the market demand warrants new production?

(b) This would mean no conservation as some define the word, but simply delayed production rather than wasteful production which threatens to deplete the nation's resources.

4. How eminent do you regard any serious difficulty in meeting the country's oil requirements?

Should a shortage in domestic crude come what will the future offer in the way of substitutes, foreign oil, oil shale, coal distillates or oragnic distillates?

5. Under present conditions is oil being produced and used as fuel that could and should be replaced by coal?

(a) What is your estimate of the amount, if any, of this unnecessary use of oil as fuel and what are the effects on the oil industry?

6. Under the present methods of producing oil, what is your estimate in volume of the waste of oil and gas?

(a) Can you list the principal causes and suggest means of avoiding or reducing the waste?

7. Do you regard changes in technical methods in the production and consumption of oil as promising relief in reducing the present high percentage of waste, or do you recommend changes in laws governing possessory rights in oil and gas as necessary to avoid the present scramble for oil?

Do you as an alternative to legislation see any promise in cooperative agreements providing for the unit leasing, or unit operation of all the lands in an oil pool?

Answer to the foregoing questions are solicited. They are not intended however, to be all-inclusive and indeed many phases of the subject are not mentioned. It is hoped that you will feel at liberty to supplement this questionnaire and express opinion of other phases of the problem.

At this time a frank statement of facts and opinions is asked of the best qualified to advise this board. It is expected that conferences will be arranged later at which opportunity will be given for a discussion of ways and means of relief. We ask your assistance and urge your full co-operation.

Increasing Capacity Pure Oil Pipe Line to Coast

Dallas, Texas, Jan. 9.—Three temporary pump stations on the Pure Oil Pipe Line Company's trunk line system connecting the Corsicana-Mexia fields with the Pure Oil Company's Smiths Bluff refinery near Beaumont, are to be replaced with permanent buildings and equipment. These stations are located at Honea, Flynn and Felecia, Texas, and the present steam equipment will be replaced by two 150 h.p. De La Vergne engines and Goulds tri-plex pumps in each station. A similar type of engine and pump is to be added to the company's main line pump station at Huffman on the lower end of the line.

The carrying capacity of the Pure Oil Pipe Line Company's line is to be materially increased with loops, according to Paul Gage, vice president and general manager of the company. This line has been crowded to capacity since its completion, and considerable common carrier crude has been handled in recent months from the Corsicana-Mexia fields to the coast.

Pittsburgh, Pa., Jan. 10.—Pure Oil Pipe Line Company has placed order for 4,600 tons of eight-inch pipe for 60 miles of line from the Mexia pool towards Beaumont. It is understood that eventually the Pure Oil Pipe Line Company plans to cover on its pipe requirements for about 208 miles of line representing more than 16,000 tons in all.

Completions for Past Week in U. S. Fields

Summarized Review of Field Results

State—	Completions This Week	Completions Last Week	Producers This Week	Producers Last Week	Gas Wells This Week	Gas Wells Last Week	Failures This Week	Failures Last Week	Initial Product'n This Week	Initial Product'n Last Week
Oklahoma	52	83	33	55	3	9	16	19	10,386	59,998
Kansas	31	..	12	..	1	..	18	..	1,920	.....
Texas	100	82	67	55	5	4	28	23	100,815	101,317
Arkansas	24	13	19	11	1	..	4	2	1,970	765
Louisiana	15	15	8	5	4	5	3	5	650	280
Eastern States	161	121	95	39	41	58	25	24	1,315	489
Mountain States	4	3	4	3	..	..	..	..	250	755
California	14	23	14	21	..	..	..	2	7,710	10,130
Totals	401	340	252	189	55	76	94	75	125,016	167,734

NOTE—Following is the explanation of abbreviations, signs, etc., used in completion and wildcat reports: *—dry hole, abandoned well; ‡—salt water; †—junked and abandoned; ¶—million cubic feet of gas; abn—abandoned; bbls—barrels; b. s.—basic sediment; cas—casing; co—cleaning out; dk—derrick; dr—drilling; fsh—fishing; ft—feet; in—inches; lcn—location; m—milling; N. S. E. W.—North, South, East, West; r—reaming; sd—shut down; sdtr—sidetracking; sp—spudded; sr—straight reaming; std—standardizing; sw—salt water; td—total depth; ur—under reaming; wo—workover; wosr—waiting on standard rig.

Texas

NORTH TEXAS

Company, Well and Location	Initial Production Bbls.	Depth
Powell—		
Humble Oil & Ref. Co.'s R. I. Kent 4	20	1652
Wortham—		
Gulf Production Co.'s N. H. Lindly 1	4500	2995
Lindly 2	2000	2990
Boyd Oil Co.'s Ferguson 1	600	3020
Simmons 7	2500	2965
Manning 1	*	1700
Humble Oil & Ref. Co.'s T. B. Poindexter 4	3000	3007
E. D. Crouch 3	4000	2985
Lindley B 1	5000	2973
T. B. Poindexter 1	6500	3002
Lindley A 1	4400	2982
E. D. Crouch 2	*	3030
Farrish-Watts-Collins' Jackson 1	2800	3012
Godley Oil Co.'s Manning 1	2000	....
Atlantic Oil Prod. Co.'s Hinchliff 1	5000	2998
J. K. Hughes Seale 1	*	1300
Crouch 4	4500	....
Crouch 6	4500	....
Cranfill et al's Cashion 1	1500	2997
Harry Moss et al's Simmons 1	4650	2980
Murchison & Fain's Simmons 1 (wo)	1500	2798
Kirby Pet. Co.'s Wright 2	1000	2992
Wright 1	2000	2993
Pure Oil Co.'s Bounds 1	2870	2978
Crouch 1	1900	2940
Simms Oil Co.'s Manning 2	*	3025
Simms-Marland's Simmons 1	4000	....
Manning 5	*	1511
Republic Prod. Co.'s Jackson 1	*	2673
Allmond 1	5000	....
The Sun Co.'s Roy Simmons 1	3000	2995
Wheelock & Collins' Smith 1	6000	3002

YOUNG COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Camp Oil & Gas Co. et al R. Campbell 1	30	941
J. W. Davis 1	*	1102
Murchison-Fain et al W. E. Gambrell 2	300	1216

ARCHER COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Atlantic Oil Prod. Co. Ward 1	*	1170
Wirt Franklin et al W. F. Parrish 2-B	110	1552
Gholke et al L. F. Wilson 1	*	1661
Graham et al L. F. Wilson 6-B	60	1586
Grisham & Parks et al C. L. Davis 6	30	1075
Gulf Prod. Co. T. L. Griffin 3-A	100	1292
E. S. Monahan 2	125	1301
A. P. Nichols 3-A	35	1405
P. F. Gwynn et al J. F. Rogers 1	100	1368
Hobbs-Burleson & Chenault et al C. Lane 1	70	1452
Humble Oil & Ref. Co. J. A. Wood 2	20	1311
Lowry-Cavin et al W. Harbinson 5	95	1339
Murchison-Fain & Marland Oil Co. H. Harmel 5-B	160	1267
T. L. Griffin 10	130	1304
T. L. Griffin 11	100	1297
J. A. Wood 4	45	1318
J. A. Wood 6	*	1400
Geo. Pace et al A. P. Nichols 1	*	1667
Petroleum Producers Co. E. A. Hausler 2	300	1129
Robertson et al J. H. White 1-B	300	1601
Ray-Featherstone et al E. A. Hausler 12	100	1120
Shaw & Rathke et al E. A. Hausler 1	500	1147
Staley & Wynn et al Kelly 1	*	1430
Sun Oil Co. W. R. Farmer et al 6	*	1600
F. C. Green 4	80	1086
Texhoma Oil & Ref. Co. L. F. Wilson 1-G	*	1465
Willott & Murphy et al T. L. Griffin 2	150	1314
Young & Looney et al R. Campbell 1	*	1246

ELECTRA

Company, Well and Location	Initial Production Bbls.	Depth
Gulf Prod. Co. Burnett Estate 16-C	*	2040
L. P. Douglas 12-B	25	1968
Forbes-Burnett 14	*	2026
Magnolia Pet. Co. Burnett Ranch Oil Co. 9	15	1760
Texhoma Oil & Ref. Co. Burnett Estate 13-B	45	1542

California

Company, Well and Location	Initial Production Bbls.	Depth
Torrance—		
Standard's Flint 2	90	3700
Joughin 19	375	3840
Fullerton Oil Co.'s Cotton 9	100	3750
Pan American's Andrews 1 (wo)	50	3860
Petroleum Securities' Kleinmeyer A-10	100	3805
Dominguez—		
Shell Co.'s Reyes 6 (wo)	300	4250
Reyes 20	2300	4326
Rosecrans—		
Associated's Higgins 2	1000	4413
Marine Oil Co.'s No. 31	1000	4908
Barnsdall's O'Dea 2	650	4142
Rideout Heights (Whittier)—		
South Hope Oil Co.'s Danziger 8	200	2475
Long Beach—		
San Martinez Oil Co.'s Booth 8	35	4612
Sunset—		
General Petroleum's Sunset A-12	60	990
Ventura—		
Shell Co.'s Edison 2	1450	4421

Louisiana

Company, Well and Location	Initial Production Bbls.	Depth
Caddo Parish—		
Gulf Ref. Co.'s Ferry Lake No. 219, 22-20-16	55	2286
Cotton Valley—		
Alabama Pet. Co.'s Smith 1, 29-21-10	125	2583
Pardee 1, 24-21-10	100	2524
Humble Oil & Ref. Co.'s Bodcaw Lbr. B-10, 28-21-10	260	2585
Woodley Pet. Co.'s Hodges 1, 18-21-9	*	2543
Total, 4 wells	485	
E'm Grove—		
Arkansas Fuel Oil Co.'s Van Hoose A-4, 31-16-11	¶1½	1890
Monroe Gas Field—		
Palmer Corp.'s Morgan 2, 21-19-5e, Ouachita Parish	¶8	2194
Stovall Drlg. Co.'s Fee 1, 27-21-4e, Morehouse Parish	¶10	2280
United Oil & Gas Prod. Co.'s Cole 2, 36-20-4e, Ouachita Parish	¶19	2182
Total, 3 wells	¶37	

Arkansas

Company, Well and Location	Initial Production Bbls.	Depth
Irma Field—		
Ames et al's Womack 1, 10-14-21, Navada county	50	1173
Smackover Field, Ouachita County—		
Clark et al's Yarbrough 2, 26-15-17.	60	2323
Forrest Oil Co.'s Cramer 17, 27-15-16	125	2298
Hunt et al's Anderson B-7, 23-15-17.	150	2295
Green B-5, 23-15-17	500	2330
Marr et al's Mullins 3, 26-15-16	50	2270
Mazda Oil Co.'s Fincher 2, 29-15-16	30	2275
Ross et al's Shirey Berg 1, 28-15-16.	50	2260
Roxana Pet. Co.'s Snyder 2, 34-15-15	80	1955
Simms Oil Co.'s Berg E-2, 30-15-15.	160	2025
James S. Smith's Shirey B-1, 36-15-17	50	2290
Smackover Field, Union County—		
Field Operators Co.'s Kane 1, 12-16-16	*	2023
Gulf Refining Co.'s M. Alphin 6, 2-16-15	80	1990
Houston Oil Co.'s Hinton 3, 5-16-15	¶30	2230
Howell et al's Williams 1, 3-16-15	125	1990
Marine Oil Co.'s Hayes 3, 4-16-15	175	1970
Marr et al's Dumas 1, 15-17-16	*	2143
Penguin Oil Co.'s Berry 3, 18-16-15.	50	2063
Pure Oil Co.'s Hicks 1, 20-16-15	50	2115
Rutledge Trust's Carruth 1, 7-16-16.	*	2405
Sunny Jim Oil Co.'s Flenniken 2, 9-16-15	25	2080
The Texas Co.'s McAdoo 1, 15-16-16.	35	2600
Wilson et al's Hayes 4, 4-16-15	175	1995
Total, 22 wells	1970	

Kansas

Company, Well and Location	Initial Production Bbls.	Depth
Cowley County—		
Sincox et al's Thompson 1, C NW NE NE 13-33-6	200	1381
T. B. Slick's Olsen 7, NEc SW NE 1-35-7	25	2332
Ark. River Gas Co.'s Shannon 1, NEc NW NE 18-31-15	*	3521
Greenwood County—		
Sinclair O. & G. Co.'s Browning 7, C NE NE SE 19-22-10	300	2300
Milligan et al's Bersie 3, C SW SW SE 22-22-11	175	1960
Kettle et al's Morris 1, SWc NW NW 28-24-13	75	1648
McGinnis & Bitler's Teeter 2, C NE SE NW 15-23-9	480	2375
Montgomery County—		
H. K. Nelson et al's No. 1, SEc NE NE 25-34-14	*	1875
Church Land 1, NWc 25-34-13	¶	1783
Mathews et al's Brooks 1, C NW SW 18-33-14	*	1730

Company, Well and Location	Initial Production Bbls.	Depth
C. Canary et al's Newell 1, NWc SW SW 17-33-14	*	1864
C. Canary's Denel 2, NEc NW NE 6-35-15	15	1751
Steinburger et al's Simpson 1, NEc SE NE 29-32-14	*	1690
Black & Landon's No. 1, SWc NW NE 28-32-14	*	1680
H. Lamb's Good 3, C S L SW NE NW 33-32-14	*	2377
Red Bank Oil Co.'s Haynes 3, SEc NW NE 33-32-14	30	1672
Talbot & Hazlett's No. 1, SWc SW SE 18-32-14	*	1750
Talbot's Farlow 1, SEc SW SE 31-33-15	*	1686
Burton & Eakin's Schwatken 1, NWc NW NE 34-31-14	*	1746
Sharpless & Stark's E. Baum 1, NWc NE NW 23-31-13	*	1683
Foster et al's McVay 1, SEc SE NW 9-32-14	*	1740
Morrison & Eberly's Dobson 1, SWc NW SW 16-34-15	*	1695
J. R. Thompson's Linscot 1, NWc NW SE 17-33-16	*	1519
Kors et al's Zutz 1, NEc 14-33-16	*	1425
Sincox's Zutz 1, C N L N½ NW NW 13-33-16	200	1381
Kors & Wilkinson's Thompson 2, SEc SW SW 12-33-16	160	1390
Harwood et al's Good 1, C SW SE NE 12-33-16	250	1320
R. G. Gillespie's Tanner 1, C S L S½ NW 9-33-16	*	1453
Reed & King's Ringle 1, NWc NW SE 16-32-16	*	1405
Greer et al's Crane 1, C S L S½ SW 5-32-15	*	1531
Woodson County—		
C. A. Crane et al's Corn 1, SEc NE NE 23-24-15	10	1567

Eastern States

PENNSYLVANIA

Company, Well and Location	Initial Production Bbls.	Depth
Bradford Field—		
Pressure Oil Co.'s Howard 1	15	....
Phoenix Oil Co.'s Kennedy & Co. 154	15	....
Associated Producers Co.'s Bingham 286	3	....
Bingham 30	4	....
Bingham 184, tract 231	3	....
Bingham 500, tract 276	3	....
Bingham 582, tract 272	2	....
South Penn Oil Co.'s Bingham 410, tract 1	7	....
Bingham 533, tract 61	2	....
Bingham 533, tract 66	3	....
Melvin 1	2	....
Melvin 2	3	....
Bingham 440, tract 1	3	....
Weston 77	3	....
Fee 4	3	....
Erie R. R. Right-of-Way 1	2	....
Shepard 1	2	....
Johnson & Wright's Wright 1	8	....
L. G. Dana's Dana 1	5	....
MacDowell & Andrus' Bingham 1	7	....
Hazlewood Oil Co.'s Lafferty 1	4	....
George & Co.'s Lafferty 1	*	....
Kishwaukee Oil Co.'s Dien & Dana 48	5	....
L. F. Kinley & Co.'s Mantz 37	3	....
T. H. Kennedy's Bingham 400, tract 126	4	....
J. B. Walters & Co.'s Franchot 11	7	....
C. Nolan's Nolan 1	*	....
Forest Oil Co.'s Porter 1	3	....
Baldwin 1	4	....
McCalip & Co.'s Bingham 1	7	....
The W. C. Kennedy Co.'s Kennedy 40	10	....
Venango County—		
Alum Rock Gas Co.'s Kapp 3	¶1	....
Brendin & Co.'s Vandyke 1	*	....
Folwell, Young & Co.'s Young 6	4	....
Hoffman, Kelley & Co.'s Sayers 7	3	....
King Interests' King 17	3	....
Surrena, Hovis & Co.'s Hovis 25	2	....
Clarion County—		
O'Neil & Co.'s Brenneman 1	¶1	....
J. M. McLaughlin's McLaughlin 12	3	....
Hess & Master's Heeter 9	¶1	....
Lamberton & Phillips' Porter 2	*	....
Butler County—		
Shaner & Co.'s Bollestine 2	25	....
E. C. Griffith's Griffith 1	4	....
Hovis & Co.'s McKinney 2	4	....
Peters & Son's Duncan 2	4	....
Sherwin & Campbell's Campbell 2	*	....
Greene County—		
Peoples Natural Gas Co.'s H. H. Milliken 1	100	....
Robert Clovis 1	¶1½	....
Manufacturers Light & Heat Co.'s W. R. Hicks 1	¶2	....
South Penn Oil Co.'s E. McCracken 1	5	....
Center-Middle Field—		
P. Keller Interests' Keller 1	2	....
Courson & King's McDonald 1	*	....
Washington County—		
Charlevoi Interests' William Jones 1	¶5	....

NEW YORK

Company, Well and Location	Initial Production Bbls.	Depth
Allegany County—		
M. J. Crowley & Co.'s Coast Co. 1	5	....
J. E. LeSuer's LeSuer 4	4	....
McMurdy & Co.'s Bertoil 1	4	....
E. J. Phillips' Phillips 1	4	....
Empire Gas & Fuel Co.'s Empire lot 1	3	....
Wasson & Sawyer's Wasson 1	3	....
Sawnett Oil Corp.'s Sawnett 1	2	....
State Bank of Boliver's Potter 20	2	....
J. P. Herrick's Herrick 1	2	....

WEST VIRGINIA

Company, Well and Location	Initial Production Bbls.	Depth
Gilmer County—		
Carter Oil Co.'s N. E. Talbot 1	5	....
Hope Natural Gas Co.'s W. W. Floyd 1	¶2	....
Mill Fork Oil Co.'s T. V. Shock 1	*	....
Ohio Fuel Oil Co.'s Viola Curry 1	¶2	....
Asberry Coberley 2	¶2½	....
Doddridge County—		
Roy Shinn's Hubert Shinn 1	25	....
Lawson, Helfrick & Co.'s J. & S. Stewart 1	5	....
Gulf Oil Co.'s Abraham Hinkle 1	*	3484
Calhoun County—		
Snyder Bros.' Snyder Heirs 1	5	....
Martin Crowley's S. B. Maze 1	¶¼	....
Crowley Bros.' W. P. Seels 1	¶2½	....
Monongalia County—		
Moore-Tex Oil Co.'s Daniel Moore 1	¶3	....
South Penn Oil Co.'s Simeoun Tennant 9	¶½	....
Elizabeth Tennant 5	¶¼	....
Ritchie County—		
Hope Natural Gas Co.'s V. M. Haught 1	¶1	....
R. Osborne 1	¶¼	....
Mary F. Bartlett 1	*	....
Wetzel County—		
Chesbro Manufacturing Co.'s H. H. Little 2	120	....
Wetzel Gas Co.'s L. E. Longstreth 1	¶¼	....
Marion County—		
Owens Bottle Machine Co.'s H. Goodnight 1	¶¼	....
C. S. Elliott's L. P. Metz 1	10	....
Lincoln County—		
West Side Gas Co.'s Charles Stowers 1	¶2	....
Ray Oil & Gas Co.'s Lena Ray 1	¶2	....
Harrison County—		
Cambridge Gas Co.'s Charles Heeter 2	¶¼	....
Wolf Pack Run O. & G. Co.'s Roda Lyons 2	*	....
Lewis County—		
Hope Natural Gas Co.'s W. H. Frost 1	10	....
Roane County—		
United Fuel Gas Co.'s J. P. Kelley 1	¶2	....
Marshall County—		
Manufacturers Light & Heat Co.'s K. M. Rice 1	¶2½	....
Cabell County—		
Florence Oil & Gas Co.'s J. H. Birch 1	¶2	....
Braxton County—		
Pittsburgh & West Virginia Gas Co.'s T. S. Stump 2	¶5	....
Nicholas County—		
Hamilton Oil & Gas Co.'s Craig 8	¶1	....
Pleasants County—		
G. A. Smith & Co.'s Dam Lamp 1	¶¼	....
Tyler County—		
George Lawson's Z. M. Stewart 1	¶1¼	....
Kenawha County—		
Columbia Carbon Co.'s C. W. Vickers 3	*	....

KENTUCKY

Company, Well and Location	Initial Production Bbls.	Depth
Barren County—		
Ziegler Bros.' Bradford 3	6	552
T. L. Gorby's Chamberlain 1	5	400
J. E. Esslinger Oil Co.'s Bud Mansfield 1	*	410
Stafford & Co.'s Settle 1	*	....
Lew J. Emery, Jr., Sons' Bridges 1	*	685
Allen County—		
White Plains O. & G. Co.'s Hornbuckle 5	160	....
H. A. Kiser's Travelstead 5	5	320
Bastrus, Parson & Co.'s Wheat 6	*	307
Bastrus & Work's Lyle 4	*	260
Lawrence-Johnson Counties—		
Union Gas & Oil Co.'s Dobyne No. 1 farm 4	40	732
Caney Sparks 1	60	728
Townsend & Garrison's F. Ferguson 3	15	731
Cumberland Petroleum Co.'s J. M. Wheeler 6	3	774
Lee-Owsley Counties—		
Williams & Edwards' E. Manis 1	*	....
Combs Bros. Development Co.'s Elmer Evans 4	2	....
H. A. Randall's Rowland 1	3	....
Black Gum Oil Co.'s Gourley-McGinnis 9	15	....
Warren County—		
P. H. Lavelle's W. Hinton 6	40	1108
Bolling & Lowman's Shannon 2	12	462
Ruby Consolidated Dev. Co.'s Price-Hall 5	35	1220
Johnson-Magoffin Counties—		
Bed Rock Oil & Gas Co.'s J. H. Arnett 17	25	....
Carter Oil Co.'s P. Long 8	3	....
Pure Oil Co.'s Unknown 1	¶2	....
Owensboro District—		
J. N. Harkless' Casey 6	15	....
Thomas & Co.'s J. H. Evans 1	15	....
Wayne County—		
Abbott & Pyle's Cooper 1	*	685
Shearer & Marsh's Brown 1	*	....
Clay County—		
Standard Oil Co. of Kentucky's Unknown 1	¶2	....
Floyd County—		
Eastern Carbon Black Co.'s C. E. Allen 2	¶3	....
Estill County—		
Scott, Pratt & Co.'s Williams 1	*	500

SOUTHEASTERN OHIO

Company, Well and Location	Initial Production Bbls.	Depth
Washington County—		
S. C. Turner & Co.'s C. Hull 8	1	....
J. T. Dillon & Co.'s E. Driscoll 32	1	....
W. F. Meister & Co.'s J. Wolfork 11	*	....
O. O. Rickard & Co.'s F. F. Dana 6	*	....
Holdman & Co.'s J. L. Farley 1	¶¼	....
The Pure Oil Co.'s E. E. Rubrake 1	¶1	1255
Pittsburgh Gas Co.'s H. W. Wood 1	¶1	1414
Bachelor Bros.' Winfred Croy 1	¶¼	1181
Logan Gas Co.'s E. Tresch 1	¶¼	1228
Pittsburgh Gas Co.'s Mollie 1	¶1	1395

CENTRAL OHIO

Company, Well and Location	Initial Production Bbls.	Depth
Perry County—		
Alleganey O. & G. Co.'s E. Berrisford 10	5	....
C. L. Bullock & Co.'s John Grannon 15	2	....
Hocking County—		
Snyder & Co.'s Eli Chute 5	10	....
Holmes County—		
Klise, Eckstein and McCan Bros.' Barnes 3	¶2¼	....

NORTHWESTERN OHIO

Company, Well and Location	Initial Production Bbls.	Depth
Auglaize County—		
Folwer Bros. Dev. Co.'s G. R. Julian 3	15	....
Neeley-Clover Co.'s J. Rapp 2	10	....
W. B. Jack's G. Testen 1	10	....
Wood County—		
Schoidt Herman & Co.'s H. Avery 1	15	....
Barclay Perry's R. & H. Burkholder 3	4	....

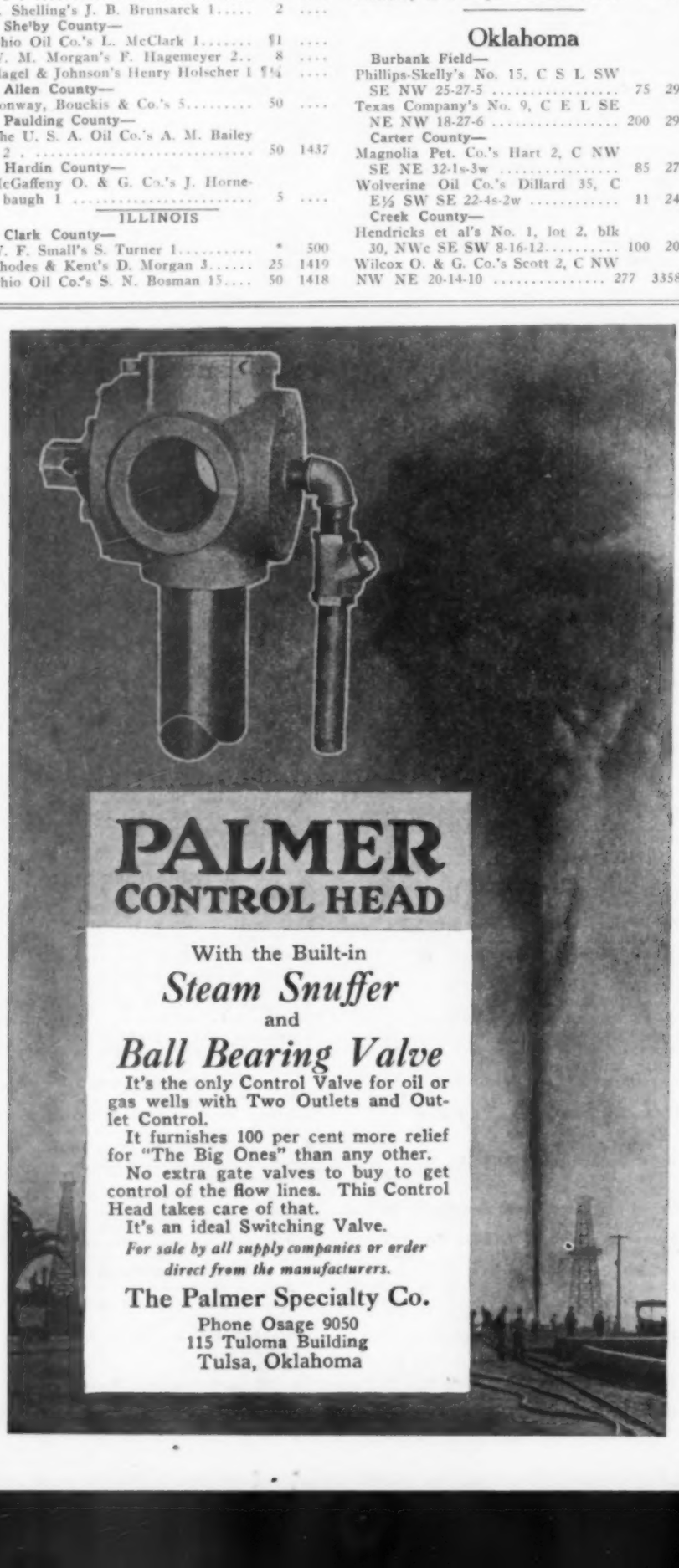
Company, Well and Location	Initial Production Bbls.	Depth
Burnell & Gage's R. H. Green 5....	50	....
Mercer County—		
Defenbaugh & Co.'s E. Snyder 3....¶2½		574
E. A. Kuhurs & Co.'s C. C. Ricketts 3	15	....
P. Shelling's J. B. Brunsarck 1.....	2	....
She'by County—		
Ohio Oil Co.'s L. McClark 1.....	¶1	....
W. M. Morgan's F. Hagemeyer 2..	8	....
Slagel & Johnson's Henry Holscher 1 ¶¼		....
Allen County—		
Conway, Bouckis & Co.'s 5.....	50	....
Paulding County—		
The U. S. A. Oil Co.'s A. M. Bailey 2	50	1437
Hardin County—		
McGaffeny O. & G. Co.'s J. Hornebaugh 1	5	....

ILLINOIS

Company, Well and Location	Initial Production Bbls.	Depth
Clark County—		
W. F. Small's S. Turner 1.....	*	500
Rhodes & Kent's D. Morgan 3.....	25	1419
Ohio Oil Co.'s S. N. Bosman 15....	50	1418
Squires & Co.'s Chas. Snearley 11..	18	....
Crawford County—		
McGee, Curtis & Co.'s Z. A. Neeley 1	*	....
Fayette County—		
McCurdy & Co.'s John Baxter 1....	*	....

Oklahoma

Company, Well and Location	Initial Production Bbls.	Depth
Burbank Field—		
Phillips-Skelly's No. 15, C S L SW SE NW 25-27-5	75	2972
Texas Company's No. 9, C E L SE NE NW 18-27-6	200	2983
Carter County—		
Magnolia Pet. Co.'s Hart 2, C NW SE NE 32-1s-3w	85	2700
Wolverine Oil Co.'s Dillard 35, C E½ SW SE 22-4s-2w	11	2465
Creek County—		
Hendricks et al's No. 1, lot 2, blk 30, NWc SE SW 8-16-12.....	100	2060
Wilcox O. & G. Co.'s Scott 2, C NW NW NE 20-14-10	277	3358
Billingslea & Devonian's Big Pond 1, SWc NE SE 30-15-9.....	*	3670
Texas Company's No. 3, NWc NE SW 26-14-8	50	2507
Suppes et al's Marshall 4, C NW SW 8-16-12	600	2080
Sinclair O. & G. Co.'s Manuel 8, C N L NE SW NE 16-18-7.....	*	3009
J. B. Grieves' Grayson 2, C SE SW 12-19-8	*	2920
Twin State Oil Co.'s Brady 1, C SW SW NW 34-16-9	110	2914
C. L. Sherman et al's Dickson 1, SEc NE SE 19-17-10	50	2148
Prairie O. & G. Co.'s M. Shoals 8, C NE NE SE 33-16-9	40	2916
Nowata O. & R. Co.'s McNac 3, SWc SE NW 16-16-9	65	3034
Roxana & Wolverine's J. Lewis 2, NEc SW SW 7-14-7	2	4176
Grady County—		
Little Nick Oil Co.'s Farwell 2, C E L E½ NE SE 26-5-8w.....	¶	2480
Stagner et al's Chandler 1-A, C NW SE NE 23-5-8w	*	1356
Grant County—		
Blackwell O. & G. Co.'s Crouch 2, NWc 23-27-3w	55	3837
Garfield County—		
Sinclair O. & G. Co.'s No. 17, SEc NE NE 13-22-4w	50	1420
Crews 10, NWc 30-22-3w	28	2075
C. E. Knox's Coker 2, NEc 26-22-4w	6	1430
Greer County—		
Norton & Neal's Wild 1, SWc NE NW 17-7-21w	*	1200
Kay County—		
Phillips Pet. Co.'s Corrigan 1-A, SWc NE NE 34-25-1w 1055		4113
Corrigan 6, SEc NE NE 34-25-1w.	20	4385
Comar Oil Co.'s McCormick 2, NWc NE SE 21-29-1w	132	1952
Clements 3-w, NWc SE NW 34-25-1w 2203		4236
Amerada Pet. Corp.'s Woods 39, NWc NW NE 34-25-1w 1795		4196
Carter Oil Co.'s Powers 2, NWc NW NE 21-25-2w	*	2450
Marland Ref. Co.'s Smith 2, SWc SW SE 15-25-2w	*	2373
Thomas 1, SEc SE SW 16-25-2w..	*	2426
Blackwell O. & G. Co.'s Humphreys 4, C W L NW NE SW 10-27-1w.	60	2357
Noble County—		
Marland Ref. Co.'s Kimsey 1, SWc 27-21-3	*	3501
Comar Oil Co.'s A. C. Blubaugh 5-A, C NW SE 2-24-1w	12	2550
Osage County—		
Barnsdall Oil Corp.'s No. 17, C S L SW SW SE 30-21-12.....	15	1942
Breene-Markham et al's No. 3, SWc 14-21-10	100	1611
Marland et al's No. 6, C SE NE 16-24-8	20	540
Mid-land Oil Co.'s No. 1, C SW SW NE 12-25-5	50	2933
Pawnee County—		
Magnolia Pet. Co.'s No. 1, C NE SE NE 5-22-3	*	2025
Saunders 3, NWc NW SW 4-22-3.	*	2800
Watchorn O. & G. Co.'s Miller 8, C S L SE SW 33-23-3	*	2729
Seminole County—		
Waite Phillips Co.'s Dunn 5, C NW NW SE 4-10-8	*	3441
Dunn 7, C NW NE SE 4-10-8....2280		3456
Dunn 6, C NW NW SE 4-10-8...	440	3500
Empire Co.'s Dunn 4, C NE SW SE 4-10-8	300	3465
Dunn 3, C NW SW SE 4-10-8....	80	3495
Stephens County—		
C. & O. Drlg. Co.'s Warner 2, SWc SW NE 22-1s-8w	¶	2012
Tulsa County—		
Riverland Oil Co.'s Maxwell 1-A, C E L E½ NE NW 14-16-12.....	*	2333
Wagoner County—		
Burnwell et al's Mantooth 1, NEc 16-18-16	*	1220
Winters et al's Bird 2, C N L N½ NW NE 9-18-16	*	1160
Hughes & Harder's No. 1 Taylor, SEc SE NE 24-18-15	¶	911
Medlin et al's Tucker 1, NEc NE SW 25-17-16	20	1345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Permits Granted and Locations for New Wells

(California—Kansas—Oklahoma—Texas—Arkansas—Louisiana)

OKLAHOMA

Carter County—Atlantic Oil Producing Co.'s Lahman 1-A, Twin to No. 1, C NE NW NE 25-2s-3w; Humble Oil & Ref. Co.'s Williams 1-A, C SW NE SW 27-20-3w. Magnolia Pet. Co.'s Arlington 2, C NW SE SW 32-2s-2w. Southern Pet. Co.'s Poland 4, C NE NW NW 5-3s-2w. Simpson & Pell's Lowery 1, SE SW NW 9-4s-2w.

Creek County—Joemack Oil Co.'s Carr 1, NWc SE NE 26-16-9. Shaffer Oil & Ref. Co.'s Long 1, SWc NE NE 6-14-9. Billingslea's McIntosh 1, NWc NW SE 24-14-9. Cosden & Co.'s Mayes 1, NEc NE SE 28-14-9. Wilcox O. & G. Co.'s Kimble and Reading 31, SWc NW NE 20-14-10.

Hughes County—E. P. Hawkins, D. Dunzy 1, C NE NE NW 23-9-10.

Lincoln County—J. V. Bailey's Tibbett 1, NW NW SE 36-17-3e. Magnolia Pet. Co.'s Ayers 1, SE SW 7-14-5, old well deepened; Kalka 1, NE SE 7-14-5.

Okfuskee County—Pratt & Burton's Sumners 1, NWc NW SE 9-12-10. Atlantic Oil Producing Co.'s Gray 3, C S L SW SW SE 36-12-10. Josey Oil Co.'s McCoy 6, SWc SW NW 33-12-11.

Pawnee County—Holmes et al's No. 1, NWc SE SE 28-20-9.

Pontotoc County—Homa-Okla's M. Shields 1, NW SW NE 33-5-8. American Oil & Ref. Co.'s Burthrop 1, SW NW SW SE 9-4-6.

Seminole County—Denver Producing & Ref. Co.'s No. 1, C SE SE NW 6-10-8.

Tulsa County—Thornton et al's Barry 13, NWc SE SW 20-19-12, old well deepened. Howard & Duffield's Worley 2, NEc NE SE 4-16-12, old well deepened.

LOUISIANA

Bossier Parish—Geo. W. Wetherbee's W. M. Holland 1, 4-22n-11w, 200 ft N and 300 ft W of SE Cor. of NW¼ of SW¼.

Caddo Parish—Fortuna Oil Co.'s Doan-Thigpen 14, 5-20n-15w, 370 ft E and 750 ft S of NW Cor. of NE¼. Gulf Ref. Co.'s Ferry Lake 220, 14-20n-16w, 2310 ft W and 1650 ft N of SE Cor. of Sec.; Ferry Lake 221, 21-20n-16w, 900 ft S and 300 ft W of NE Cor. of Sec. Tholl Oil Co.'s Houston Ice & Brewing Co. 6, 14-21n-15w, 75 ft E and 75 ft N of SW Cor. NW¼ of SW¼ of SW¼.

St. Mary Parish—Glenwild Oil Co.'s Glenwild 1, 22-15s-12e, Spanish Grant Section, 1100 ft SE from Drainage Station.

Webster Parish — Crusader Oil Producing Co.'s Hope 7, 24-21n-10w, 330 ft N and 330 ft E of SW Cor. NW¼ of NE¼. Fortuna Oil Co.'s E. W. Cox 2, 15-21n-10w, 330 ft N and 330 ft E of SW cor. SW¼ of SW¼. Humble Oil & Ref. Co.'s Jennie Moore 1, 34-21n-10w, 330 ft S and 1650 ft W of NE Cor of Sec.; Bodcaw Lbr. Co. B-12, 24-21n-10w, 990 ft N and 330 ft E of Center of Sec.; S. S. Merritt 4, 14-21n-10w, 990 ft S and 330 ft W of NE Cor. of Sec.; M. E. Gray 2, 26-21n-10w, 990 ft W and 1650 ft N of SE Cor. of Sec. The Ohio Oil Co.'s Bodcaw Lbr. Co. 17, 13-21n-10w, 330 ft N and 330 ft E of SW Cor. NW¼ of SE¼.

KANSAS

Cowley County—Texas Co.'s Staggers 1, NEc NW NE 13-32-3. Empire Gas & Fuel Co.'s Eastman 4, SEc NE SE 6-31-6. A. D. Morton et al's De Bard 1, SWc NE 35-34-3.

Wilson County—Price et al's Thompson 1, C N L SE SW 22-29-16.

CALIFORNIA

Brea Olinda Field—Fullerton Oil Co.'s No. 19, 2-3-10.

Elk Hills Field—Pacific Oil Co.'s No. 108, 35-30-24.

Fresno County Field—C. J. Howell's No. 1, 25-14-19.

Inglewood Field—Amazon Drilling Corp.'s Baldwin 2, 9-2-14.

Kern County—Painted Hills Oil Assn.'s E-1, 19-31-22. Donald W. Whittier's Nicholas Fried 1, 5-11-24.

Long Beach Field—A. T. Jergins Synd.'s No. 2, 29-4-12. B. & H. Oil Co.'s No. 1, 19-4-12. S. L. Pugh & F. G. Delaney's Dollarhide 1, 24-4-13.

Lost Hills Field—Universial Cons. Oil Co.'s No. 44, 32-26-21.

McKittrick Field—Northern Counties Oil Co.'s No. 1, 18-30-22.

Midway Field—Pacific Oil Co.'s No. 51, 5-32-24; No. 236, 31-31-24; No. 65, 25-31-23. Midland Oilfields Co. Ltd.'s No. 13, 24-31-23.

San Benito County—Henry Harper's No. 9, Rancho Antonis.

San Luis Obispo County—Belridge Oil Co.'s Judge 1, 6-11-24.

Torrance Field—Standard Oil Co.'s Marble Lease 2, 22-4-14. General Pet. Corp.'s Poggi 1, 25-4-14.

ARKANSAS

Drew County—Rhodes et al's Harrison 2, 5-13-8, location not surveyed.

Nevada County—Humble Oil & Ref. Co.'s Gincher 1, 6-15-22, 330 ft S and W of NEc SE¼ NW¼. Zingg et al's McKinney 1, 10-14-21, in NEc NW¼ SW¼.

Ouachita County — Forrest City Box Co.'s Fee 3, 31-15-16, 200 ft N and E of SWc NW¼ SW¼. Hunt et al's Haltom 1, 23-15-17, 250 ft S and 200 ft W of NEc SW¼ SW¼. Staples et al's Smith 4, 36-16-17, 200 ft N and E of SWc NE¼ NE¼. The Texas Co.'s Reynolds 4, 23-15-17, 200 ft N and W of SEc NW¼ SW¼; Stout Lumber Co. 5, 31-15-16, 200 ft N and E of SWc SW¼ SE¼.

Union County—Ark Fuel Oil Co.'s Scott 1, 1-16-17, 200 ft S and E of NWc SE¼ SW¼. Gulf Ref. Co.'s Louis Werner 28, 6-16-16, 2440 ft N and 1120 ft E of SWc of Section. Ohio Oil Co.'s Pate 5, 10-16-15, location not surveyed.

TEXAS

(Includes permits issued in two week period ending January 9.)

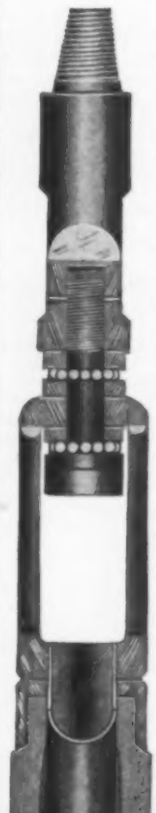
Archer County—Simms Oil Co.'s W. F. Parrish 5, sec 26, H&TC Ry sur, 340 ft W No. 4; J. C. Rogers 1, (Freestone County). United Central Oil Corp.'s J. R. Rogers 2, 2407 TE&L sur, 150 ft to S and W lines. Maer & Staniforth's C. E. Graham 1, W. B. Sweeney sur, 150 ft to S and E lines. Petroleum Prod. Co.'s E. A. Hausler 4, S. C. Hardaway sur, 150 ft to N and E lines. Fisher & Gilliland's J. F. Rogers 2, 2407 TE&L sur, 300 ft W No. 1. Texas Co.'s W. R. Gambrell 1, BBB&C Ry sur, 1805 ft to W and 1505 ft to N line. Magnolia Pet. Co.'s K. Rogers 1, 2407 TE&L sur, 800 ft to N and 150 ft to W line. Sun Oil Co.'s F. C. Green 5, BBB&C Ry sur, 300 ft N No. 3; W. R. Farmer 7, Bell C. S. L. sur, 200 ft to E and 150 ft to N line; M. J. Kunkel 1, BBB&C Ry sur, 151 ft to S and E lines. Shaw & Rathke's W. O. Hayter B-1, 1598 TE&L sur, 150 ft to N and E lines; E. A. Hausler C-1, Thos. McCoy sur, 150 ft to N and W lines; C-2, same sur, 150 ft to N and E lines. Oil Inv. Co.'s Fee 4, J. Richards sur, 300 ft S No. 3. Waite Phillips' L. F. Wilson 5, Hocritzs ur, 470 ft W No. 4; No. 6, same sur, 470 ft W No. 2. Hobbs, Chenault & Burleson's L. F. Wilson 4, Amer Trib sur, 150 ft to E and 300 ft to S line. E. M. Jones' Morrison Bros. 1, 1581 TE&L sur, 150 ft to N and W lines; J. F. Ceruosek 1, 2409 TE&L sur, 150 ft to N and W lines. Jetter & White's J. H. White 3, Amer Trib sur, 300 ft E No. 1. Swastika Oil Synd.'s A. P. Neal 3, blk 10, D. White sur, 450 ft to N and 150 ft to E line. Maer & Staniforth's E. S. Monohan 1, 1599 TE&L sur 150 ft to N and E lines; No. 2, same sur, SW cor; F. W. Pollei 4, blk 7, Thos. McCoy sur. Gulf Prod. Co.'s H. L. Ward 1, BBB&C Ry sur, 3733 ft to N and 150 ft to W line; T. B. Wilson 2, sec 2, SP Ry sur, 1000 ft to W and 2640 ft to S line; T. L. Griffin A-7, 1600 TE&L sur, 300 ft W No. 2; Oil Inv. Co. 8, sec 125, J. W. Harris sur, 300 ft SE No. 5. A. T. Wolfe & Son's W. H. Chilson 1, blk 24, D. C. S. L. sur, 150 ft to W and N lines. Petroleum Prod. Co.'s E. A. Hausler 3, Hardaway & McCoy sur, 359 ft E No. 1. H. C. Donohoo's Ward Bros. 2, J. Tumlinson sur, 450 ft to E and 150 ft to S line. Texhoma Oil & Ref. Co.'s Moritz & Phillips 1, blk 6, BBB&C Ry sur, 150 ft to S and E lines. D. S. Golding's C. E. Wilhelm 1, 2420 TE&L sur, 150 ft to S and W lines. Mitcham & Logan's J. B. Wilson 1, Dallas C. S. L. sur, 450 ft to S and E lines. R. J. Grant's E. Beardon 1, J. B. McLyman sur, 450 ft to N and 150 ft to W line. E. M. Jones' J. F. Rogers 1, 2407 TE&L sur, 150 ft to S and W lines. P. F. Gwynn's A. Patusek 1, W. E. Probert sur, 150 ft to S and E lines. Waite Phillips Oil Co.'s L. F. Wilson 5, W. Horritz sur, 490 ft W No. 4; No. 6, same sur, 470 ft No. 2. Texas Co.'s N. M. Thompson 1, sec 20, Amer Trib sur, 1288 ft to W and 1980 ft to

Weekly Comparison of New Wells

Following is a condensed table giving a comparison of permits or locations made for new wells in Kansas, Oklahoma, Arkansas, Louisiana, Texas and California:

	Number of Wells for Week Ending															
	Sept. 26	Oct. 3	Oct. 10	Oct. 17	Oct. 24	Nov. 1	Nov. 8	Nov. 15	Nov. 22	Nov. 29	Dec. 6	Dec. 13	Dec. 20	Dec. 27	Jan. 3	Jan. 9
Kansas	23	21	25	16	12	30	38	23	36	33	44	12	22	15	..	4
Oklahoma	60	66	43	32	47	53	77	61	56	53	68	54	62	37	32	23
Arkansas	12	7	7	16	14	12	9	17	16	16	13	21	21	15	12	11
Louisiana	14	5	10	9	5	19	11	10	11	23	14	11	..	13	8	13
Texas	110	96	86	107	129	103	111	150	111	156	100	146	281	165	...	64
California	19	21	18	22	17	20	23	17	16	14	21	19	26	25	13	19
Total	238	216	189	202	224	237	269	278	246	295	260	263	412	270	134	134

Standlee Swivel Swab



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S line. Prairie Oil & Gas Co.'s L. F. Wilson D-30, blk 27, Amer Trib sur, 450 ft to E and 659 ft to S line. Roxana Pet. Corp.'s J. H. Blewett 1, blk 45, Toby sur, 150 ft to N and E lines.

Atascosa County—Laughter & Howard's L. Hughes 1, blk 1, sec 1359, 150 ft to N and 750 ft to E line.

Caldwell County—Lefevre & Storey's Mrs. M. L. Brewer 1, J. Burleson sur, 300 ft to SE and 150 ft to NE cor. United North & South Oil Co.'s H. S. Trammel 8, N. Reaville sur, 486 ft to W and 150 ft to S line.

Callahan County—Oscar Brown's J. M. Jones 1, Lavaca C. S. L. sur, 150 ft to N and W lines. A. A. Hunter's A. C. Young 6, sec 4, Bayland Asy sur, 165 ft to S and 500 ft to W line. Landreth Prod. Co.'s W. M. Isenhour 1, sec 6, Bayland Asy sur, 150 ft to N and 200 ft to W line. A. C. McDonald's Mrs. A. S. Loban 4, 2995 TE&L sur, 300 ft NE No. 3. Moutray Oil Co.'s W. M. Isenhour 4, sec, Bayland Asy sur, NW cor. Price & Copeland's Mrs. A. S. Loban 4, 2995 TE&L sur, 190 ft to W and 150 ft to S line; No. 5, same sur, 300 ft S No. 3. J. C. Park et al's Z. C. Wagley 7, sec 2, D&D Asy sur, 150 ft to S and E lines. J. C. Van Bebber's Grant 5, sec 318, SP Ry sur, 500 ft to W and 700 ft to S line. Morrison & Kleiner Bros.' B. E. Rutherford 6, sec 8, Bayland Asy sur, 1350 ft to E and 150 ft N line.

Cass County—Daniel & Daniel's J. E. Lanier 1, A. Douthit sur, 150 ft to N and W lines.

Chambers County—Texas Co.'s Kirby Pet. Co. 2, H. Griffith league, 200 ft to E line.

Clay County—Mills Bennett's E. L. Holloway 1, Parker C. S. L. sur, 150 ft to N and W lines.

Freestone County — Sparkman & Colquitt's Wotham Add. 1, blk 2, Worthmore Add sur, no lcn. Boyd Oil Co.'s W. D. Wilson 3-A, S. McAnulty sur, 116 ft to S and 150 ft to W line; 4-A, same sur, 120 ft to N and 192 ft to W line; 5-A, same sur, 300 ft E No. 1; W. E. Smith 5-B, same sur, 300 ft N No. 5; 14-B, same sur, 383 ft E 2-B; H. F. Ferguson 8, same sur, 269 ft N No. 6. Humble Oil & Ref. Co.'s J. P. Stubbs A-2, R. B. Longbotham sur, 150 ft to S and 385 ft to E line; A-3, same sur, 150 ft to W and 577 ft to S line. J. B. Gaddis' W. B. Wilson 1, Worthmore Addition, 40 ft to E and 30 ft to N line. Sun Oil Co.'s Roy D. Simmons 3, Wortham sur, no lcn; No. 6, same sur, no lcn. Ramsey & Buttram Pet. Co.'s A. B. Munsen 1, Wm. Richie sur. 150 ft to S and E lines. Simms Oil Co.'s J. C. Rogers 1, Wortham sur, 247 ft to E and 150 ft to N line. Pure Oil Co.'s S. T. Bounds 5, R. B. Longbotham sur, 300 ft NW No. 1. Gulf Prod. Co.'s N. H. Lindley 4, R. B. Longbotham sur, 1050 ft to S and 150 ft to E line; No. 5, same sur, 150 ft to S and W lines. Southern Exploration Co.'s T. E. Longbotham 1, Wm. Richie sur, 1350 ft to E and 150 ft to S line.

Eastland County — Corzelius Bros.' C. A. Hatten 1, sec 30, H&TC Ry sur, 250 ft to W and 500 ft to N line.

Fort Bend County—Texas Co.'s Geo. Lingman 1, BBB&C Ry sur, 250 ft to E and 50 ft to N line. Gulf Prod. Co.'s J. H. P. Davis 2, Geo. Waters sur, 3691 ft N No. 1; J. W. Moore 3, German Immigration sur, 650 ft N No. 2

Harris County—J. E. Ratliff's Crews 2, Jas. Strange sur, no lcn.

Harrison County—North Texas Central Oil Co. of Texas' J. Masingale 1, blk 4, M. D. Edwards sur, 150 ft to N in center of line. Stateline Oil & Gas Co.'s M. M. O'Bannion 1, W. H. Adams sur, 740 ft W of SE cor.

Hardin County—Gulf Prod. Co.'s Wing 161, John Knight sur, 75 ft N No. 21. Cottin Oil Co.'s Gulf 5, C. F. S. Jorditt sur, 225 ft to S and 200 ft to E line. McNamara Oil Co.'s Bushara 12, S. Jackson sur. 360 ft to N and 60 ft to W line.

Jim Hogg County—E. St. Albans' R. Holbein 3, sec 15, Las Animas, no lcn.

Jefferson County—Texas Co.'s Neches Canal 1, Wm. McFarland sur, 2420 ft to W and 3900 ft to N line.

Live Oak County—Texas Co.'s Reagan 2, Louis Roramo sur, 150 ft to S and E lines.

Liberty County—Republic Prod. Co.'s Dolbear 98, J. Devore sur, 1852 ft to W and 2569 ft to S line.

Limestone County—Boyd Oil Co.'s H. F. Ferguson 8, S. McAnulty sur, 369 ft N No. 6.

McLennan County—I. E. Harvey's P. A. Clark 1, I Golindo sur, 400 ft to E and 1000 ft to N line.

McMullen County—P. S. Crotty et al's T. R. Kuykendall 1, sur 7, south central.

Milam County—Brady Bros.' Baldridge Bros. 2, T. J. Chambers sur, 800 ft to N and 2000 ft to E line.

Navarro County—Tidal Oil Co.'s J. B. Bush 3, Jas. Smith sur, 150 ft to N and E lines. Texas Co.'s R. D. Fleming 13, John Harris sur, 50 ft W No. 10.

Pecos County—W. E. Huston's F. O. Perry 1, blk 178, TC Ry sur, 1400 ft to W and 1500 ft to S line.

Reagan County—Big Lake Oil Co.'s University 16, blk 2, University Lands sur, 1320 ft to S and W lines; No. 17, same sur, 1320 ft to N and W lines; University 17, same sur, 1320 ft to N and E lines; No. 16, same sur, 1320 ft to S and E lines. Simms Oil Co.'s Sawyer Cattle Co. 1, 12 Sawyer sur, 1320 ft to W and 100 ft to S line.

Reagan and Upton Counties—Big Mexia Oil Synd.'s University 1, sec 17, blk 3, 1320 ft to N and W lines.

San Patricio County—Plateau Oil & T. P. Coal & Oil Co.'s D. L. Freeman 2, blk 39, E. J. McGloin sur, 1700 ft S No. 1.

Shackelford County—L. B. Tannehill's Mrs. A. Palm 2, sec 44, Blind Asy sur, 1000 ft to E and 200 ft to N line. Loofburrow, Chamness Oil Co. Inc.'s J. J. English 8, 29, University Lands sur, 490 ft to N and W lines. Stovall Oil & Gas Co.'s Brooks 1, sec 67, Insane Asy sur, 150 ft to S and E lines.

Stephens County—G. H. S. Coozee's R. F. Brown 2, B. F. Wood sur, 75 ft W No. 1.

Wichita County—R. R. Robertson's S. H. McCarty 3, S. O. Fowler sur, 300 ft S No. 2. T. F. Hunter's R. K. Callen 2, A. Brigham sur, 150 ft to W and 1505 ft to N line. J. L. Art's J. A. Terhune 2, J. M. Sharp sur, 300 ft S No. 1. J. L. Elliott's J. M. McFall 1-B, sec 127, Balch sur, 500 ft to W and 150 ft to N line. Atlantic Oil Prod. Co.'s W. T. Waggoner 9, sec 33, H&TC Ry sur, 50 ft S No. 7. M. M. Silberman's Mrs. G. Jennings 4, sec 12, HT&B Ry sur, 150 ft to E and 480 ft to N line. Texhoma Oil & Ref. Co.'s S. B. Burnett 7, sec 5, SA&MG Ry sur, 300 ft E No. 6. Gulf Prod. Co.'s S. B. Burnett 29, sec 1, T&NO Ry sur, 300 ft W No. 28. Perkins & Cullum's F. A. Sounders 2, blk 3, Specht sur, 300 ft W No. 1. Bullington et al's A. V. McCarty 6, S. O. Fowler sur, 150 ft to S and E lines. T. F. Hunter's C. W. Bailey 1, H. Hastie sur, 150 ft to S and W lines. W. M. Moore's T. L. Burnett 2, sec 7, HT&B Ry sur, 335 ft NW No. 1.

Webb County—Morgan & Gibbie's M. Vela 1, sur 263, 210 ft to E and 150 ft to S line. Lewis Oil Co. & Nat. Ref. Co.'s Mrs. D. Benavides 1, 701⅓ BS&F sur, 2640 ft to N and E lines. Wheatley Oil Co.'s E. Garcia 13, blk 51, Los Ojuelos Grant, 150 ft to S line.

Wilbarger County—Humble Oil & Ref. Co.'s R. L. Catlebury 2, sec 83, H&TC Ry sur, 336 ft E No. 1. Ruff & Weekley's Waggoner Est. 1, sec 11, H&TC Ry sur, 150 ft to S and E lines. Hoffer Oil Corp.'s W. T. Waggoner 1, sec 49, H&TC Ry sur, 200 ft to N and W lines. Lippard Oil Co.'s F. Fluhmann 1, W. A. McKinney sur, 150 ft to N and E lines. Gulf Prod Co.'s W. T. Waggoner R-1, sec 50 H&TC Ry sur, 303 ft to N and 1200 ft to W line.

Young County—Panhandle Ref. Co.'s W. E. Gambrell 1, sec 11, BBB&C Ry sur, 150 ft to S and E lines. R. V. Treadwell's W. A. Ribble 1, Jas. Roses sur, no lcn. Texhoma Oil & Ref. Co.'s W. E. Gambrell 1, sec 1, BBB&C Ry sur, 150 ft to S and W lines. Texas Co.'s W. M. Graham 1, 193 TE&L sur, 1050 ft to N and 250 ft to W line. Gulf Prod. Co.'s B. Schlegel 1, sec 1, BBB&C Ry sur, 150 ft to S and W lines.

WILDCATS FROM ALL SECTIONS

New Production Area Added in Texas Panhandle; Oil From Shallow Depth

Amarillo, Texas, Jan. 12.—An entirely new oil producing area was uncovered in the Panhandle district of Texas during the past week when Jim O. Whittington's wildcat test on the Williams & Laycock land in Wheeler County began spraying oil at the rate of about 40 barrels daily at 2190 feet, with 15 million cubic feet of gas coming from sandy lime at 1940-2175 feet. This well is the shallowest oil producer in the Panhandle district, and is the first for the county. The nearest oil field is located to the east at Sayre, Oklahoma.

The Wheeler County oil discovery well is located 1120 feet each way from the northeast corner of section 9, I. & G. N. Ry. survey, block 27, and about one mile south of the North Fork of the Red River. The top of the lime was logged at 1447 feet, and heavy gas production made its first appearance while drilling in lime at 1940 feet, increasing to about 15 million cubic feet when deepened to 2175 feet. The first show of oil was reported at 2185 feet while making gas from the upper horizon. A string of 6⅝-inch casing is to be set to shut off the gas flow and drill deeper in the oil pay. This test is the second one drilled by Jim Whittington on the Williams & Laycock land, and the first test was completed last year with an estimated production of 125 million cubic feet of dry gas at 2152 feet after an unsuccessful attempt to lubricate off the gas flow. The first test was drilled in the center of the south half of section 6, which is about one mile south of the oil producer, and encountered gas at 1817 feet in September, 1923. The gas flow increased to above 100 million cubic feet after drilling through numerous gas pays to 2152 feet.

Daily oil production in the Panhandle district amounts to about 1160 barrels from 14 pumping wells in Carson and Hutchinson Counties, and three new completions are expected this month from tests drilling on the Burnett ranch in upper Carson County. The Skelly Oil Company's Burnett 2, section 93, block 5, Carson County, is standing with oil in the hole after drilling sandy lime pay at 2904-12 feet, with a total depth of 2960 feet, but will not be completed until storage is available in the Plains Pipe Line Company's tank farm. Oil produced by Skelly, American Refining Company and the W. W. Silk Interests has been contracted for by the Big Four Refining Company, which is building a skimming plant at Panhandle, and deliveries are to be made via the Plains Pipe Line Company's line.

Coastal Wildcats

ANGELINA COUNTY—Ferdinand Heine's Henderson-Ellison 1, SW cor blk 13, 150 ft to S and W lines, J. H. Ellison sur, sand, reaming to set cas, td 530 ft.

BRAZORIA COUNTY—D. F. Bryan Prod. Co. and Hamm et al's Bryan 1, at Freeport, J. G. McNeel sur, setting 6¾-inch cas, td 3181 ft. Z. Gayle's Gayle & Dunsmore 1, 6 miles S Angleton, W. J. Russell sur, 500 ft to W line, preparing to spud in.

BRAZOS COUNTY—Bryan Pet. Co.'s Watthuber 1, 2 miles S College Station, C. Burnett sur, reported sd at about 2500 ft.

FORT BEND COUNTY—Gulf Prod. Co.'s Moore 3, dr 430 ft. Neilan Oil Co.'s B. Frederick 1, 4½ miles W Rosenberg, sec 19, S. George sur, NW cor, reported sd at 850 ft. Pathfinder Oil Co.'s Davis & Co. 2, Geo. Waters sur, 520 ft. Jas. W. Rich et al's Moore-Hager 2, at Big Creek, 300 ft NE No. 1, SE side of dome, ready to spud in. Rycade Oil Corp.'s Meier 1, 1200 ft S and 800 ft W of Nash 2, 650 ft S and 450 ft W of NE cor Meier tract, moving dk to lcn; Nash 1, 200 ft S of NW cor Capt. Nash's 200 acre tract, rigging up; Nash 2, Alsberry sur, 400 ft E and 600 ft S of NW cor Nash's 486 acre tract, 28 degrees NW and 4650 ft NW No. 1, milling at 2675 ft. Texas Co.'s Fee 1, at Big Creek, 2100 ft NE of W cor and along NW line, 50 ft SE at right angles from Texas Co.'s N line, dr 3430 ft.

GALVESTON COUNTY—Gulf Prod. Co.'s Geo. E. Smith 2, at High Island, dr 2150 ft.

HARDIN COUNTY—Kirby Pet. Co., Munson & Anderson et al's Hodges 3, near Batson, Hodges 202 acre lease, temp abn, td 3135 ft.

HARRIS COUNTY—Dome Dev. & Pet. Co.'s Schneider 1, Schneider farm, John D. Taylor sur, blk 41, temp abn, td 850 ft.

JACKSON COUNTY—Vanderbilt Pet. Co.'s Seliner 1, 4 miles N Vanderbilt, C. W. Hall subdivision of Harwood-Burns ranch, sd at 2720 ft.

JEFFERSON COUNTY—Houston Oil Co.'s Sun-Pipkin 1, Pipkin & Davis sur, dr 3620 ft; Staiti 5, S. Eaton sur, 250 ft S Staiti 4, dr 1638 ft. Paggi Bros.' Wilson Hardware Co. 1, Wilson Hdw. Co. tract, lcn.

LIBERTY COUNTY—Texas Co.'s Fee 2, ½ mile S Fee 1, dr 970 ft.

MATAGORDA COUNTY—Marland Oil Co. of Texas' Murphy 1, Jermiah Dwyer sur, dr 4513 ft. Rycade Oil Corp.'s Gray 1, offset to Sisk 1, 150 ft N of N line of Texas Co.'s 20 acre lease, 150 ft W of E line blk 2, dr out plug at 3244 ft; Gray 2, 600 ft N of S line and 1400 ft W of E line blk 2, dr 1942 ft. Sheppard Mound Oil Co.'s Hawkins 2, offset to Marland's Murphy 1, 3000 ft E Commonwealth Oil Co.'s Hawkins 1, 1000 ft SE No. 3, Hawkins Estate, dr 150 ft.

MILAM COUNTY — Sinclair Oil & Gas Co.'s Smith 1, 12 miles SE Cameron, Smith-Turney structure, 7000 acre blk, 300 ft N and 300 ft W of NW cor R. N. Turney 162 acre lease, dr 3957 ft.

WHARTON COUNTY — Gulf Prod. Co.'s Cloud 2, 1400 ft E No. 1, dr 1050 ft; Felder 3, 20 ft to W and 1735 ft to N line blk 3, S. Ingram sur, dr 2040 ft.

Couzens Investigation Not to Adjust Payments

Washington, D. C., Jan. 12.—No refunds will be made to any corporations or individuals whose income tax reports may be under investigation by the Couzens committee of the senate which is investigating the Internal Revenue Bureau, and no case will be settled on the principles of amortization, depletion and discovery values that are objected to by this committee, it has been learned.

According to Senator Couzens (Mich.) this will result in a more equitable application of the rules to all cases. The committee is spending a lot of time, energy and effort to see just what is the effect of depletion credits policy of the bureau upon the oil companies of the United States. It is charged in complaints that have come to the committee, it is said, that the depletion credits allowed by the bureau are excessive and unwarranted, and has meant that some of the oil companies have paid little or no taxes in comparison to what they should pay into the federal treasury.

Senator Couzens stated that the committee has not as yet reached any conclusions or held any hearings with respect to this matter, although it is investigating the situation through the use of its own personnel. The committee later will determine whether or not the system is satisfactory by investigating a number of cases wherein it is involved. It will also seek to determine whether such policy as the bureau may have is uniformly applied to all cases.

Will Drill Ten Wells In South Bosque Field

Waco, Texas, Jan. 10.—Thomas F. Bush of Waco will drill 10 wells in the South Bosque shallow oil field soon, he announced today. This will be the first drilling activity in the old field for some time.

Production depth in the South Bosque locality is around 500 feet. For 20 years wells in the pool have averaged about two barrels of oil per day.

Roy D. Gwynne of Tulsa, purchasing agent for the Gypsy Oil Company and Gulf Pipe Line Company, resigned January 1. He has been in ill health for some time.

Sir James T. Currie has been elected president of the Lago Petroleum Corporation of New York, succeeding Henry N. Greis of Tulsa, Oklahoma, who has resigned.

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Los Angeles

Central West Texas Wildcats

COMPLETIONS

Company, Well and Location	Initial Production Bbls.	Depth
Brown County—		
Canyon Oil & Gas Co. et al Ellsberry 1	*	1450
Davis & Swartz et al Newton 2	*	1281
T. B. Slick et al Chambers 1	1	3411
Callahan County—		
Seaboard Oil & Gas Co. Isenhower 2-A	30	1779
Reagan County—		
Texon Oil Land Co. University 3, (Sec. 36, blk 9)	2200	2935

DRILLING REPORT

BROWN COUNTY—M. T. Anderson-Moore et al's Wheeler 1 sd making three million ft gas after second shot 2805 ft. Calvert et al's Prather 1, dr 1305 ft. Gillman et al's Newton 6, dd, co 1298 ft; Newton 7 testing sand 1250-80 ft. Honea et al's E. DeBusk 2, sd 2300 ft. McMurray et al's Newton 2, rig. New Era Oil Co.'s Prather 3, dr 1125 ft. Omaha Southern Oil Co.'s G. B. Gaines 2, sd 1840 ft. D. B. Thomas et al's Bohara 1, sd 2410 ft. Ward Oil Co.'s Windham 1, sd 1190 ft. Williams et al's H. A. Newton 1, sd 605 ft.

CALLAHAN COUNTY—Byron-Union Oil Co.'s Hennessy 1, sd 4405 ft. Chas. Dutton et al's Cathey 5, sd 1505 ft; Cathey 7, rig; Harwell 1, sd 800 ft. Junior Oil Co.'s A. L. Huntington 1, sd 2280 ft. A. G. McMath et al's Isenhower 1, spudded and sd. O'Donnell et al's Cathey 1, dr 1715 ft. L. D. Prewitt et al's Geo. T. Crane 1, fsh 1879 ft; Crane 2, sd 1010 ft; W. W. Crane 1, ur casing 1630 ft; Jones 1, spudded and sd.

COLEMAN COUNTY—D. R. Bailey et al's Kelly-Grady 1, sd 305 ft. Roth & Farouth's Overall 9, testing gas sand 1201 ft.

JOHNSON COUNTY—Culberson-Wyley & Dunlap's A. B. Pullen 1, sd 1505 ft.

PALO PINTO COUNTY — Burton-McKee Oil Corp. (was Britton & Ritchie's) Strawn Coal Co. Fee 3, setting casing 3130 ft. Cameron & Anderson's W. O. Pollard 2 sd 805 ft. J. D. Cranford et al's L. Smith 1, sd 750 ft. Hughes et al's Belding 1, sd 3520 ft; Weldon 2, sd 3430 ft. Hart et al's Smith 1, dr 1100 ft. Little Caddo Oil Synd.'s Massie 2, sd 905 ft; Fitzgerald 1, sd 835 ft. McKinney et al's Marsden 1, sd, 465 ft. S. W. Manning et al's R. Hitson 1, sd 3675 ft. Phillips et al's Stringer 1 sd 1255 ft. Phillips & Graham's J. A. Caudill 1, co after shot 3800 ft. Wickens et al's Williams 1, dr 2585 ft.

PARKER COUNTY — G. E. LaBeaume (Trustee's) B. C. Evans 1, sd 500 ft.

SOMERVELL COUNTY—Glen Rose Oil & Gas Co. et al's J. R. Buzan 1, sd 4000 ft.

BREWSTER COUNTY—Green Valley Oil Corp.'s W. A. Wilson 3, (Sec. 8, blk 212, T & St. L. Ry. sur) dr 460 ft. Tesnus Oil Corp.'s A. S. Cage 1, sd 2555 ft. Brewster Oil Corp.'s W. H. Kokernot 1, sd 2535 ft. Portland Oil Synd.'s State 1, sd 3220 ft. Nine Points Oil & Gas Co.'s Peralto et al 1, sd 3060 ft.

COKE COUNTY—West Virginia Oil Marketing Assn.'s J. R. Mims 1, rig. Mexia-Equitable Oil Co.'s W. H. J. Hodges 1, sd 2500 ft.

CONCHO COUNTY — Dome Production Co.'s Mrs. C. M. Hartgrove 2, dr 305 ft. Schultz Oil Co.'s W. O. Schultz 1, sd 3225 ft.

CRANE COUNTY — Texas Development Co.'s Jax Cowden 1, sd for casing 2630 ft; Cowden 2, lcn.

CROCKETT COUNTY—Josh S. Cosden et al's University 1,, (Sec. 34, blk 12) spudding. Peer Oil Corp.'s University 1, (Sec. 14, blk 50) lcn. Kanawah-Angelo Oil Co.'s University 1, (Sec. 9, blk 52) rigged up. Crockett Drilling Synd.'s Robt. Massey 1, sd indefinitely 1755 ft. World Co.'s L. P. Powell 1, sd 1310 ft.

CULBERSON COUNTY—J. D. Wesner et al's Mack Sayles 1, sd 3105 ft.

DAWSON COUNTY—Lamesa Oil Co.'s John Burns 1, sd 2150 ft.

ECTOR COUNTY—Farmers Oil Co.'s Andy Newham 1, sd 1400 ft.

EL PASO COUNTY—Burns & Knight's Fee 4, dd, dr with rotary 4800 ft.

FISHER COUNTY—Pyron Oil Co.'s J. S. McCall 1, sd 3120 ft.

GARZA COUNTY—B. V. Blackwell et al's J. M. Boren 1, sd with oil in hole after shot 2443 ft. Mitchell-McDaniel & Jewell's Connell 1, fsh 1850 ft.

GLASSCOCK COUNTY — Gulf Production Co.'s L. S. McDowell 1-C, dr hard lime 2755 ft. Cushing Ranch Drilling Assn.'s W. H. Sparkman 1, sd 1950 ft. Ledger Co.'s C. I. Brunson 1, sd 3520 ft.

HUDSPETH COUNTY—Boole Oil Assn.'s Gardner et al 1, sd 1540 ft. Hueco-Basin Oil Co.'s University 1, sd 2560 ft. Wm. Loftus et al's Minnie Veal Slaughter 1, sd 1625 ft.

HOWARD COUNTY—Big Springs Oil Co.'s Mable O. Quinn 1, sd 3640 ft.

IRION COUNTY—Orient Oil Co.'s J. D. Sugg 1, (Sec. 27, blk 2, H&TC sur) sd 1115 ft. Virginia-Texas Pet. Co.'s W. M. Noelke 1, (Tom Green County School Lands) re-running 10-inch casing 1910 ft.

JONES COUNTY—Anson Oil & Dev. Co.'s C. B. Brown 1, sd 1855 ft. C-H Oil & Dev. Co.'s Cullom 1, sd 3500 ft.

KARNES COUNTY—Alidor Oil Co.'s A. W. Hyatt 1, sd 1156 ft.

LOVING COUNTY—P-V Pet. Co.'s N. E. Chapman 1, co 715 ft. Ramsey Prod. Co.'s Russell 1, sd 4485 ft; Russell 2, sd 810 ft.

MITCHELL COUNTY—The California Co.'s E. Morison 12, rigging up; P. Elder 1, dr 300 ft. M. E. Eddleman et al's A. C. Gist 1, dr out cement plug 2930 ft. Sloan Oil Co.'s H. C. Miller 3, dr with show oil 3003 ft. Eastland Oil Co.'s W. D. Keynard 1, (Sec. 15, blk 28) spudding. J. T. Harris et al's W. C. Brown 1, sd 370 ft; Brown 2, fsh tools 300 ft.

PECOS COUNTY—Plymouth Oil Co. (W. E. Houston Trustee's) Perry Ranch 1, dr 75 ft. Arkansas Fuel Oil Co.'s Blackstone & Slaughter 1, crooked hole 740 ft. Transcontinental Oil Co.'s Sherbino 1, dr 1250 ft. Trans-Pecos Oil Co.'s H. L. Thomas 1, sd 1830 ft; W. W. Turney 1, sd 2900 ft; Johnson-Troy 1, sd 2965 ft; Bennett 1, sd 1240 ft. Southern States Lease & Prod. Co.'s J. M. Odem 1, sd 1205 ft.

PRESIDIO COUNTY—Tesnus Oil Corp.'s Toole Estate 1, sd 965 ft.

REAGAN COUNTY—Arkansas Fuel Oil Co.'s University 1, (Sec. 9, blk 6) sd for fsh tools 3355 ft. Big Lake Oil Co.'s University 3, dd, plugging to abn 3105 ft; University 14, (Sec. 1, blk 2) sd for storage 2881 ft; University 15, (Sec. 12, blk 2) re-running 5 3/16 casing 2835 ft; University 16, (Sec. 1, blk 2) spudding; University 17, (Sec. 1, blk 2) spudding; University 18, (Sec. 25, blk 9) bldg rig; University 19, (Sec. 25, blk 9) lcn. Brandon & McCamey et al's University 1, (Sec. 27, blk 2) dr 1850 ft. B. H. Cogdell et al's University 1, (Sec. 23, blk 8) rig burned, td 365 ft. Crockett Drilling Synd.'s University 1, (Sec. 9, blk 9) dr 3385 ft. The California Co.'s University 1, (Sec. 13, blk 8) trying for casing seat 2870 ft. H. S. Grayson et al's University 1, (Sec. 28, blk 8) dr 1835 ft. W. M. Henderson et al's University 1, (Sec. 11, blk 9) bldg rig. J. K. Hughes et al's University 1, (Sec. 5, blk 9) dr with rotary 1835 ft. P. H. Hoffman et al's University 1, (Sec. 23, blk 11) sd for water 330 ft. H. B. McGuire et al's C. W. Merchant 1, (Sec. 12, L. S. & V Ry. sur) lcn. Mid-Kansas & Transcontinental's Hughes & Mason 1, (Sec. 1225, EL&RR sur) dry and sd 3211 ft. Simms Oil Co.'s Sawyer Cattle Co. 1, (Sec. 12, S. A. Glass sur) setting 20-inch casing 210 ft. J. T. Stover et al's University 1, (Sec. 34, blk 11) sd 200 ft. Texon Oil & Land Co.'s University 1, Group 2, (Sec. 22, blk 9) dr 4940 ft; University 2, Group 2, (Sec. 26, blk 9) lcn; University 4, Group 1, (Sec. 1, blk 8) dr 1200 ft; University 5, Group 1, (Sec. 1, blk 8) bldg rig. Transcontinental Oil Co.'s University 1, (Sec. 10, blk 1) ur casing 3390 ft. University Oil Co.'s University 1, (Sec. 17, blk 10) sd for casing 2315 ft. C. J. Wrightsman et al's Ingham 1, (Sec. 39, blk "C", L&SV Ry. sur) dr 400 ft.

REEVES COUNTY—Dome Drilling Synd.'s Ira J. Bell 1, flowing water 655 ft. Dixieland Oil Co.'s Oates 2, sd 4505 ft.

RUNNELS COUNTY—Subscribers Assn.'s Russell-Giesezke 1, sd 2876 ft.

SCURRY COUNTY—Camp Springs Oil & Ref. Co.'s W. Y. Jones 1, sd 600 ft; J. O. Quinn 1, sd 3570 ft; L. E. Howell 1, lcn. Hermleigh Oil & Gas Co.'s J. W. Burris 1, sd

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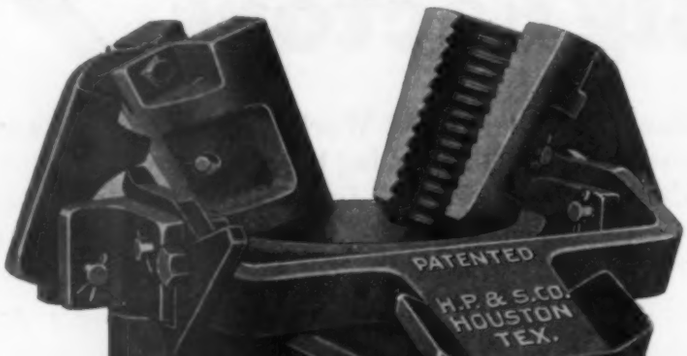

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2965 ft. Stanton Oil & Gas Co.'s J. W. Riley 1, sd 2500 ft.

STERLING COUNTY—Chas. Pettit & Albert Adkisson et al's C. C. Reynolds 1, (NE¼ Sec. 9, blk 22, H&TC sur) lcn. Ford & Cogdell et al's W. L. Foster 1, sd for casing 920 ft. Chicago-Texas Oil & Gas Synd.'s D. C. Durham 1, sd 1427 ft; Durham 2, sd 1406 ft. Co-Operative Lease & Dev. Co.'s Douthitt 1, sd 2000 ft. Fidelity Oil Co.'s G. R. Hull 1, co 1708 ft. John W. Sward et al's L. T. Clark 1, machine.

STONEWALL COUNTY—Elder Nance et al's Ward Estate 1, dr 1550 ft.

TAYLOR COUNTY—Sanger Oil & Ref. Co.'s McClure 1, lcn; S. P. Hollingshead 1, sd 1710 ft; Tom Sawyer 1, sd 2700 ft.

TERRELL COUNTY—R. E. Dunn et al's Fee 1, sd 405 ft. Southwest Texas Oil & Gas Co.'s Fee 1, sd 3515 ft.

UPTON COUNTY — Big Mesa Oil Co.'s University 1, (Sec. 17, blk. 3) dr 110 ft. W. P. Morris et al's H. M. Halff 1, spudded and sd. Bell & Regan et al's University 1, (Sec. 2, blk 4) sd for casing 310 ft. Suggs & Chancellor's University 1, (Sec. 8, blk 4) spudded and sd. Virginia-Texas Petroleum Co.'s University 1, (Sec. 14, blk 15) dr 3225 ft.

VAL VERDE COUNTY—East Del Rio Oil Co.'s Russell & Weathersbee 1, sd 2605 ft. Independent Operators' Whitehead 1, sd 2155 ft. Joe W. Morris et al's Moore Estate 1, sd 2280 ft. Re-Clamation Oil Prod. Co.'s J. B. Moore 1, sd 2575 ft. Hodges & Wright's B. S. Harrison 1, sd 1100 ft.

WARD COUNTY—Cook & O'Brien's G. W. O'Brien 1, sd 1175 ft.

Texas Panhandle Wildcats

CARSON COUNTY—American Ref. Co.'s Burnett 3, sd 2695 ft. J. Crosbie et al's Burnett 1, sd 2700 ft. Culbertson et al's V. B. Armstrong 1, dr 3265 ft. Gates Oil Co.'s Burnett 1, cementing cas 3020 ft. Gulf Prod. Co.'s Burnett 5, dr 2275 ft; Burnett 6, dr 660 ft; Burnett 7, rigging up; Burnett 1-A, dr 3510 ft. Marland Oil Co.'s Burnett 1, cemented cas 2850 ft. Olson Bros. et al's Burnett 1, sd 2500 ft. Premier Oil Corp.'s Burnett 1, sd 1650 ft. W. W. Silk et al's Burnett 3, second hole, std 2999 ft. Skelly Oil Co.'s Burnett 2, set cas 2790 ft. The Texas Co.'s Burnett 5, dr 1584 ft; Mary C. Burnett 2, dr 2400 ft.

COTTLE COUNTY—T. J. Woodley et al's A. Dulaney 1, sd 2700 ft.

GRAY COUNTY—A. R. Anderson's C. W. Bradford 1, sd 900 ft. C. H. Clark et al's Coombs & Worley 1, dr 2500 ft. Danciger Oil & Ref. Co.'s J. B. Bowers 1, spd. Frank Dillard's John Henry 1, sd water 3110 ft. W. H. Holmes' J. S. Morse 2, fsh 2400 ft. Wilcox Oil & Gas Co.'s J. H. Wilson 1, sd 3520 ft.

HUTCHINSON COUNTY — Amarillo Oil Co.'s L. Bivens 2-B, sd 2650 ft, approximately 70 mil cu ft gas. H. G. Barnum et al's Johnson 1, sd 2860 ft. Dixon Creek Oil Co.'s R. C. Smith 1, dr 2878 ft. Douglass Oil Co.'s J. A. Whittenberg 1, sd 2930 ft. New Domain Oil Co.'s W. S. Christian 1, dk. Prairie Oil & Gas Co.'s Diana Shaw 1, dr 2760 ft, 40 mil cu ft gas. Twin Six Oil Co.'s W. L. Kingland 1, sd for cas 3000 ft. Western Enterprise Oil & Gas Co.'s Smith-Capers 1, sd 3050 ft. J. W. Wilson et al's Whittenberg 1, fsh tools, 2910 ft.

KING COUNTY—W. G. Trammell et al's Spikes 1, rigged up.

MOORE COUNTY — Amarillo Oil Co.'s Masterson 1, second hole, sd 1510 ft.

POTTER COUNTY—Amarillo Oil Co.'s L. Bivens 3-A, dk; W. H. Bush 1, sd 3490 ft; J. C. Warrick 1, rebldg rig, td 2200 ft.

ROBERTS COUNTY—Phil Engle et al's Mrs. Ledrick & Sons 1, sd 1730 ft.

WHEELER COUNTY—Mid-Continent Oil Synd.'s Ember 1, sd 500 ft. W. D. Sheddon et al's B. F. Westmoreland 1, sd 480 ft. Union Pet. & Supply Co.'s O. T. Richardson 1, sd 1500 ft. J. Whittington's Williams & Laycock 2, spraying approximately 100 bbls daily, now running casing, td 2200 ft.

San Antonio District Wildcats

COMPLETIONS

Company, Well and Location	Initial Production Bbls.	Depth
Caldwell County—		
United North & South Oil Co.'s Proctor 10	850	....
Jim Hogg County—		
Plateau Oil & Gas Co.'s Holbein 1	2500	....
O. W. Killam's Texo 1	500	....

DRILLING REPORT

ATASCOSA COUNTY—DeLange-Eiser Co.'s Tom 2, dr 3800 ft; reported gas showing. Texacosa Oil & Gas Co.'s Peeler 1, dr 1650 ft. Tripps Drlg. Co.'s McAda 1, testing 1200 ft. Green et al's Hoak 1, sd.

BEXAR COUNTY—Aviators' Swearingen 1, dk. J. M. Davis et al's Koch 1, dr 1100 ft. F. B. Slick's No. 1, dr. White & Hampton's Swearington 1, sd.

DUVAL COUNTY—Co-Operative Drlg. Co.'s Dinn 1, sd 2070 ft. Mequite Oil Co.'s No. 1, setting liner. Hill-Pierce Corp.'s Martinez 1, dr. Cole Pet. Co.'s No. 6, set cas at 2463 ft.

GUADALUPE COUNTY — J. K. Hughes Dev. Co.'s Allen 20, no report. Allen Burman's Wade Battle 1, dr below 2000 ft. Magnolia Oil Co.'s Nos. 13 and 14, dr. Sight et al's Springs 1, dr below 1400 ft. Ross & Green's Pryor 1, dr below 1800 ft. Jennings et al's Lynch 1, sd 2250 ft. Walhunda Pet. Co.'s Smith 1, sd 2075 ft. Mid-Kansas Oil & Gas Co.'s Edna Krueger, spd in.

JIM HOGG COUNTY—Kitselman & St. Albau's No. 1, blk 36, sur 15, dr below 1400 ft. Simms Oil Co.'s Wood 1, sur 84, dr below 2140 ft. Plateau Oil & Gas Co.'s Holbein 1, producing 2500 barrels; 2 and 3, dks. Buffam et al's No. 1, blk 28, sur 15, rigging up. Russell-Hoffman's David Vela ranch 1, dk. Alworth Bros.' No. 1, blk 38, sur 15, coring at 2000 ft. Big Bend Oil Co.'s Martinez 5, cemented 6⅝-inch cas 1900 ft; 6, dr 1050 ft. J. W. Pippin et al's No. 1, sur 51, dr. Magnolia Oil Co.'s Thompson 1, pulling liner to reset screen; 2, lcn. Weber Oil Co.'s Holbein 4, bailing. Lang et al's No. 1, coring below 2177 ft. Shasta Oil Co.'s Holbein 1, dr below 2475 ft. O. W. Killam's Texo 1, sur 16, blk 255, swabbing 500 bbls; Martinez 1, dr 1080 ft; Killam 1, dr 1800 ft; Texo 2, dk. Witherspoon Oil Co.'s Holbein 1, setting cas at 2045 ft; 3, dr in; 4, lcn.

LIVE OAK COUNTY—Grubstake Investment Assn.'s Nichols 3, no report. Glasco & Fallin's Tip 1, sd 600 ft. Southern Natural Gas Co.'s No. 6, dr; 10, lcn. Coquet et al's Hicks 1, dr. Nueva Oil Co.'s No. 4, dr below 1900 ft. Morgan-Wolcott et al's No. 1, sur 688, testing at 2255 ft.

ZAPATA COUNTY—H. J. McMullen's Nos. 1, 2 and 3, Serapio Vela, lcns. R. K. Bateman et al's No. 1, sur 617, dr below 1960 ft. Mirando Oil Co.'s No. 16, sur, 307, sd 2020 ft. Killam Interests' No. 1, sur 307, set cas at 1664 ft. Hill et al's Haynes 1, dr. Pamuco Prod. Co.'s Vela 1, dr below 400 ft.

East Central Texas Wildcats

BOWIE COUNTY—Geo. B. McCullough & Roell's W. R. Williams 1, (L. M. Rice sur) spd and sd. Williams et al's Daulby 1, sd 2050 ft. Delaney Oil & Gas Co.'s Rochelle 1, (Collin-McKinney sur) fsh 2290 ft.

FALLS COUNTY (Kosse district)—C. W. Harrison et al's J. W. Preston 1, (H. Anderson sur) dr hard lime 3025 ft.

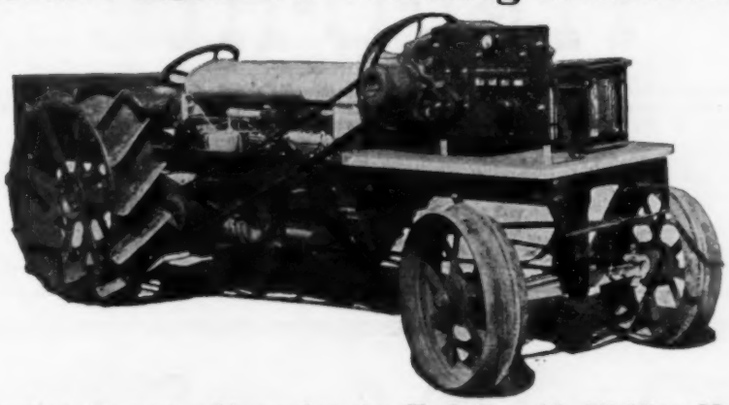
FANNIN COUNTY—Lester Petroleum Co.'s S. D. Graves 1, (Wm. Hutchins sur) dr 2478 ft.

FRANKLIN COUNTY—Arkansas Fuel Oil Co.'s J. A. Dickson 1, (Thos. Willison sur) dr 150 ft. Marshall & DeGenther's Swanner 1, (Hanks sur) sd for cas 1800 ft.

HENDERSON COUNTY—Fred E. Haynes et al's E. G. Bounds 2, (Henry Jeffreys sur) sd 2000 ft.

HOPKINS COUNTY—Gulf Prod. Co.'s W. J. Davis 1, (Jas. Clark sur) Pecan Gap 1533 ft, Austin chalk 2770-2818 ft, dr top Woodbine sand 3275 ft. Bar-Tex Drilling Co.'s C. H. McClure 1, (D. Waggoner sur) rig. Stough & Potts et al's J. R. Fitzgerald 1, (John

Clark Electric Welding Machine



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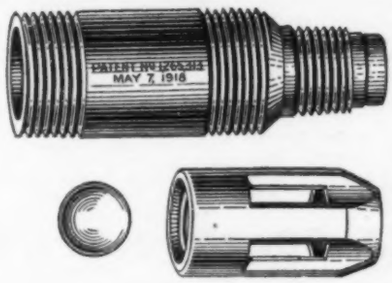

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Stop Lifting Your Tubing to Make Your Kick-off!

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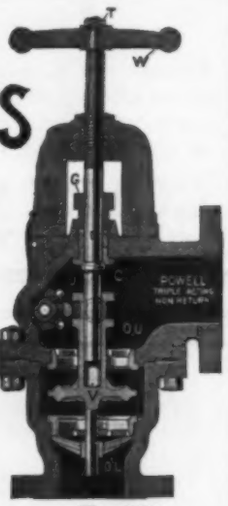

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Binnion sur) sd 1610 ft. C. A. Kelsey et al's Addie Brooks 1, (D. Dowdle sur) sd 1825 ft.

HUNT COUNTY—Gulf Prod. Co.'s M. E. Alexander 1, (E. Tidwell sur) broken chalk 1820-1940 ft, dr Austin chalk 2340 ft; W. B. Bryan 1, (Jas. Cole sur) dr 600 ft. Lyles et al's Meadows 1, (Jas. Levins sur) lcn.

KAUFMAN COUNTY—Marland Oil Co.'s R. E. Kenshale 1, (B. S. Newman sur) dr 500 ft. Atlantic Oil Prod. Co. & Jackson-Cathcart's R. S. Watkins 1, (C. Pearson sur) co 2742 ft. J. A. Germany et al's W. S. Kirby 1, (S. Edens sur) sd indefinitely 3255 ft. Humble Oil & Ref. Co.'s J. T. Matthews 1, (Antonio Reyes sur) rig for core test.

LAMAR COUNTY — Interstate Oil Co.'s Ben Haynes 1, (Larkin-Rattan sur) steel dk.

NAVARRO COUNTY—Bankers Trust Co.'s McCormick 1, (18 miles NW of Corsicana) sd 1829 ft. Alex Patrick & Ilseng's W. L. Roberts 1, (Jos. Mayor sur) sd 1740 ft. Elliott & Nicolle's D. J. Westbrook 1, (Henry H. Horn sur) East Bazette district, dr 1900 ft. Sun Oil Co.'s Earnest Swink 1, (S. Richland district) Austin chalk 2512-2658 ft, dr in Woodbine sand 2940 ft. Moore Bros. et al's Mrs. E. R. Quinby 1, (Q. N. Anderson sur) NW of Currie, gas blow out 1245 ft.

RAINS COUNTY—J. B. Leggett et al's (was Mrs. Ferguson & Short Bros.) W. D. Peeples 1, (J. A. Tibbles sur) spd and sd.

RED RIVER COUNTY—Johnson Pet. Co.'s Antone & Worley 1, (Robt. Gamble sur) sd 3590 ft.

ROCKWALL COUNTY—M. H. West-J. J. Johnson & G. C. Rochelle's J. S. Shook 1, (S. S. McCurry sur) 1 mile NE of Rockwall, co 2510 ft, td 2970 ft.

TITUS COUNTY—Magnolia Pet. Co.'s Geo. Antone 1, (M. V. Delgado sur) dr 1425 ft.

VAN ZANDT COUNTY—Freestone Oil Co.'s (was Porter-Holmes et al) J. T. Dunbar 1, (Van Sickle sur) sd 3500 ft.

WOOD COUNTY—Golden Oil Co.'s J. D. Adrian 1, (Hallmark sur) dr 4012 ft.

North Texas Wildcats

COMPLETIONS

Company, Well and Location	Initial Production Bbls.	Depth
Clay County—		
J. T. Cumley's N. C. Camp 1.....	*	1830
Lone Star Gas Co.'s Lockridge 2....	¶½	1525
Morris & D'Yarmitt's J. Stephenson 1	*	1260
Montague County—		
Gulf Prod. Co.'s M. E. Benton 1...	*	3535
Wilbarger County—		
Ray & Massey's D. Bond et al 2....	150	2065
Winnipeg Oil Co.'s Bond et al 4....	250	2064

DRILLING REPORT

BAYLOR COUNTY—Dallas Oil Co.'s Shawver Bros. 1, sd 1905 ft Lehman et al's Shawver Bros. 1, dr 1010 ft. Magnolia Pet. Co.'s W. H. Portwood 2, preparing to pump, sand 1410-13, 200 ft oil in hole. Stanley McGregor's E. S. Wallace 1, dr 1865 ft. Richardson Bros. et al's Wallace Estate 1, sd 220 ft. Texhoma Oil & Ref. Co.'s W. H. Portwood 1, dr 1130 ft.

CLAY COUNTY—Ashcraft et al's W. H. Chilson 1, dk. Atlantic City Prod. Co.'s Scaling 1, sd 2890 ft. L. R. Dixon et al's R. H. Godfrey 2, spd. E. C. D'Yarmitt's Scott 2, sd 600 ft. Knox Finley Dev. Co.'s Scott 4, dr 1010 ft. J. O'Neil's O. A. Ross 1, sd 2150 ft. Piedmont Oil Co.'s Dean 1, sd 1210 ft. Shelton Oil Co.'s H. Boddy 1, sd 1370 ft. Somers & Nantz's Mary C. Parker 1, sd 1000 ft.

COOKE COUNTY—Big Indian Oil Co.'s W. B. Davis 1, sd 3525 ft.

DENTON COUNTY—Arbuckle Asphalt & Pet. Co.'s K. Fonteberry 1, dr 650 ft.

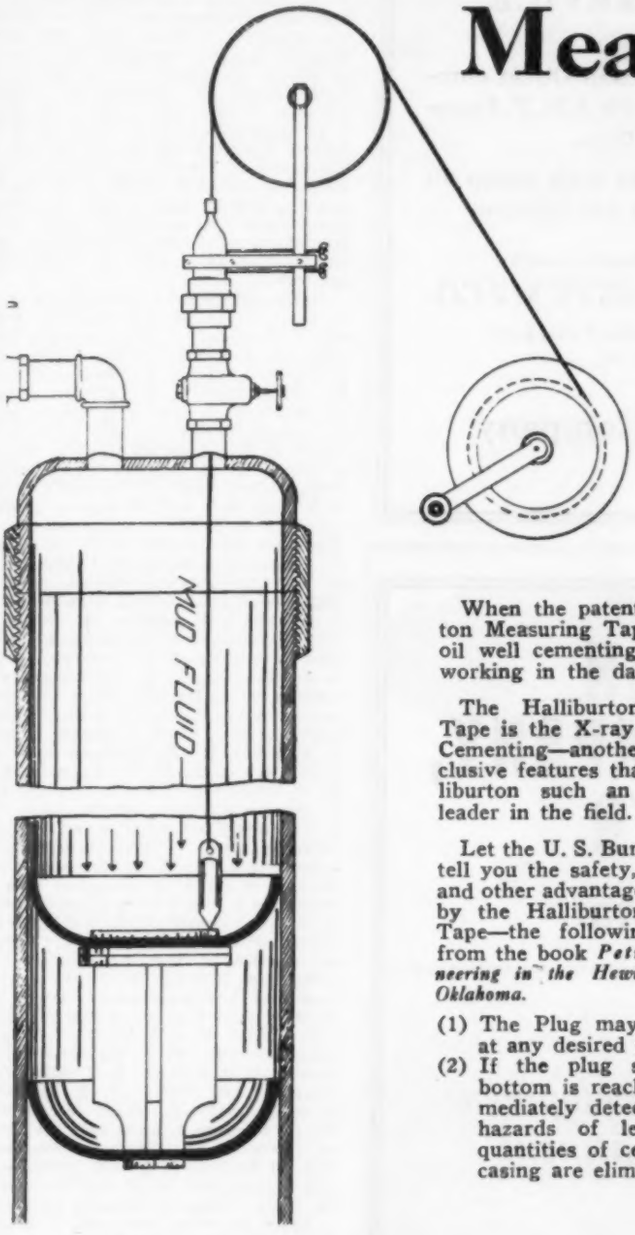
GARZA COUNTY—Union Pet. Corp.'s C. C. Connell 1, fsh 1850 ft.

GRAYSON COUNTY—W. R. Shankle et al's J. Marshall 1, 2nd hole, sd 1100 ft.

KNOX COUNTY—Brazos Bend Oil Co.'s J. E. Clark 1, sd 2020 ft. Evans et al's Ella Lawson 1, sd 765 ft.

MONTAGUE COUNTY—P. F. Lesh's Mrs. M. H. Salmon 1, running liner, os 935-41 ft. Petroleum Producers Co.'s C. H. Howard 1, dr deeper 1450 ft, had approximately 50 bbl well

Halliburton Patented Measuring Tape Introduces *Visibility* into Oil Well Cementing



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Let the U. S. Bureau of Mines tell you the safety, convenience and other advantages introduced by the Halliburton Measuring Tape—the following is taken from the book *Petroleum Engineering in the Hewitt Oil Field, Oklahoma.*

(1) The Plug may be stopped at any desired point.
(2) If the plug stops before bottom is reached it is immediately detected and the hazards of leaving large quantities of cement in the casing are eliminated.
(3) Any desired amount of "washed" cement may be left in the pipe.
(4) No obstruction, such as a 4-inch x 4-inch post is left below the top plug, hence the drilling out of the plug does not subject the casing or cement to possible injury from the action of the tools.
(5) No water meter or gauge tank is necessary when using the measuring line.
(6) Mud fluid from the pump can consequently be used in place of clear water which is seldom available.

We have just prepared a book *Scientific Oil Well Cementing,* of special interest to those who want to get full value from their drilling investments. Send us your name and we'll mail you a copy.

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Viking Twin Oil Pumping Units

Figure—15

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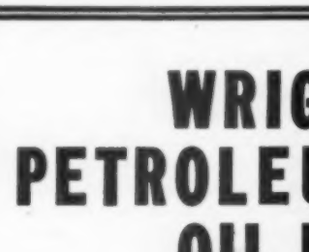

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in sand 1395-1430 ft. Owenwood Oil Corp.'s Mrs. M. H. Salmon 1, star machine. The Texas Co.'s I. A. Gist A-3, dr 445 ft; Mrs. M. H. Salmon 1, dr 500 ft. Texhoma Oil & Ref. Co.'s J. W. Maddox 1, dr 575 ft.

STONEWALL COUNTY — Elder Nance's Ward Estate 1, dr 1440 ft.

THROCKMORTON COUNTY—Clark et al's J. L. McCarson 1, sd 1500 ft. Cragin et al's J. R. Burkhalter 1, sd 50 ft. Groves & Burton's Reynolds Cattle Co. 1, sd 672 ft. Hamilton et al's J. T. Odell 1, dr 2950 ft. C. F. Kelsey's W. D. Housley 1, sd 50 ft. King et al's A. P. Broyles 1, sd 900 ft. Bruce Larkin et al's Mrs. Richards 1, sd 790 ft, est 1 million ft gas. McGee et al's J. T. Davis 1, sd water 1310 ft; J. J. Keeter 1, dr 330 ft; Lila D. Martin 1, sd 100 ft. McNeil et al's Travis County School Land 1, rigged up. McKnight et al's A. H. Haley 1, fsh, top os 1240 ft. Plains Prod. Co.'s G. S. Wise 1, dr 300 ft. Schimmell et al's H. W. Kelley 1, sd 100 ft. Skinner et al's Mrs. M. A. Mitchell 1, dr 600 ft. The Texas Co.'s A. L. Smythe 1, ur cas 1040 ft.

WILBARGER COUNTY—Allday et al's W. S. Lundy 1, sd 100 ft. American Pet. Co.'s W. T. Waggoner 1, dk. Atlantic Pet. Co.'s Parker 1, dr 480 ft. Barker & Hamilton's A. P. Morris 1, sd 305 ft. Barkley & Meadow's W. H. Stephens 1, dr 1975 ft. Bridwell & Heydrick's S. A. Dill 2, preparing to pump, os 1265-85, flowed 125 bbls 12 hrs; Dill 3, dr 600 ft; Dill 4, dr 200 ft; J. W. McCrary 1, dr 150 ft; W. H. Stephens 3, cem cas 2290 ft; Stephens 6, dr 975 ft. Bridwell, Heydrick & T. P. Coal Co.'s W. T. Waggoner 1, fsh 800 ft. Burton & Ruff's W. T. Waggoner 1, dr 400 ft. Dill Farm Oil Co.'s W. B. Dill 1, ur cas 2375 ft. Electra Gulf Oil Co.'s M. Ditto 1, dr 1775 ft. Gulf Prod. Co.'s C. Zipperly 1, dk; W. T. Waggoner R-1, lcn. R. N. Hamilton et al's B. L. Haynes 1, dr 1630 ft. B. Harrell et al's W. T. Waggoner 1, rigged up and sd water. Hart et al's Smith 1, sd water, td 2125 ft. Hoffer Oil Corp.'s W. T. Waggoner 1, dk. Humble Oil & Ref. Co.'s R. L. Castlebury 2, rigging rotary; Castlebury 3, dk; Castlebury 4, rigging rotary; W. T. Waggoner 1, dr 750 ft. C. F. Kolp's W. T. Waggoner 2, dr 1210 ft. J. B. Levy et al's W. T. Waggoner 1, dr 870 ft; D. Wheeler 1, dr 800 ft. Lippard Oil Co.'s F. Fluhman 1, rigging rotary. Little Oil Co.'s J. T. Youngblood 1, sd water 1300 ft. McCamey et al's G. W. Richardson 1, sd 2060 ft; Richardson 2, dk; W. H. Stephens 2, dk. Ed Mulligan et al's W. T. Waggoner 1, dr 1600 ft. Murchison & Pigg's Davis 1, straightening hole, td 1025 ft. Mutual Oil Co.'s C. Zipperle 1, dr 750 ft. Noble Oil Co.'s W. T. Waggoner 1, sd water 2025 ft. Oxford Oil Co.'s W. T. Waggoner 1, dr 1530 ft. W. Priddy et al's R. L. Castlebury 1, rigging rotary. Ray & Massey's D. Bond et al 4, dr in, os 2000-20; Bond et al 5, dr 500 ft. W. L. Ruff's W. T. Waggoner 1, rigging rotary. W. J. Sheldon et al's W. J. Sheldon 1, sd 1710 ft. J. F. Shipley's B. W. Murphy 1, sd 100 ft. F. S. Skinner's Fred Streit 1, dr 1300 ft. South Vernon Oil Co.'s W. H. Stephens 4, dr in 2050 ft; Stephens 6, sd orders on os 1720-30 ft; Stephens 7, dr 1900 ft; Stephens 8, dr 1600 ft; Stephens 9, dr 1600 ft; Stephens 10, dr 1930 ft; Stephens 11, dr 1850 ft. Staley & Wynne's W. H. Stephens 1, rigged up and sd water; W. T. Waggoner 1, dr 1500 ft. Texas Oklahoma Oil & Ref. Co.'s J. Bowers 1, ur cas 2050 ft. The Texas Co.'s R. L. Castlebury 1, lease B, dr 890 ft. Texhoma Oil & Ref. Co. and D. Holmes' Mrs. A. Thomas 1, rigging rotary. R. M. Waggoner & Winnipeg Oil Co.'s Bond et al 1, testing sandy lime 2280-82 ft; Bond et al 2, dr 1700 ft. Wells & Guiberson's W. T. Waggoner 2, dr in, sand 2200-10 ft; W. T. Waggoner 3, dk. G. C. Wood et al's A. Streit 1, rigging up; L. Boger 1, dr 1100 ft. Yoder & Harrison's Mrs. J. T. Williams 1, dk.

Oklahoma Wildcats

ALFALFA COUNTY—McGuinnis & Ward's Watts 1, C NE SW 21-27-10w, sd 3240 ft. Armstrong, Henley & Piffles' Turnbull 1, C NW SE NW 25-24-11w, dr 2700 ft.

ATOKA COUNTY — McPhearson et al's Wild 1, SWc NW 7-2-9, sd 4323 ft. Henson et

al's Dabney 1, C SE NW 17-4-11, sd 2260 ft. J. P. Torrance et al's Fee 1, SWc NE 1-2-9, sd 2235 ft, hfw. Wapanuka Dev. Co.'s Underwood 1, C W L SE SE 28-2-9, sd 1343 ft.

BLAINE COUNTY—Meyers et al's Chronister 1, SEc NW NW 7-18-15w, sd 965 ft. Thompson's Dickerman 1, C SE SE SE 26-15-12w, sd 3213 ft. Okomo Oil Co.'s Ekleman 1, SWc 21-13-10w, sd 2610 ft.

BRYAN COUNTY — Alexander's Hampton 1, SEc NE 26-7-11, sd 1400 ft.

CANADIAN COUNTY — Thos. Revelle's Dawson 1, SEc 34-13-9w, dr 2905 ft. Carroll et al's Setter 1, SEc 2-13-8w, sd 100 ft.

CLEVELAND COUNTY — Garr Oil Co.'s Holland 1, NEc SE 31-10-4, sd 2620 ft.

CUSTER COUNTY—Hoover Oil Co.'s No. 1, NWc SE 34-13-14w, fsh 2510 ft.

GRANT COUNTY—Embry et al's Edwards 1, C SE SE NW 20-26-4w, sd 1000 ft. Midwest & Gulf's Moon 1, NEc NW 8-27-8w, sd 2490 ft. Phillips Pet. Co.'s Ridings 1, NEc SE NW 29-29-4w, fsh 4667 ft. Frank Traver et al's Fuss 1, SWc NW NW 3-27-4w, sd 1250 ft.

GREER COUNTY—Neal et al's Johnson 1, SEc NE NW 3-7-22w, dr 1245 ft. Boss & Terrill's Van Victor 1, C SW SW 4-3-22w, sd 2460 ft. Morton & Neal's No. 1, SWc NE NE 17-7-21w, sd 1230 ft.

HUGHES COUNTY — Mathers & Skelly's McClain 1, C SW SW 4-5-11, sd 3206 ft. Dixie Oil Co.'s Irvine 1, SW NW SE SE 18-8-10, set 5-inch 3040 ft. Walton, Snyder & Marshall's Kiles 1, C E L NE NW 8-6-10, dr 930 ft.

JEFFERSON COUNTY—Connell Oil Co.'s Anderson 1, SEc NE 31-4-8w, sd 2000 ft. Landis et al's Standfield 1, SEc 33-7-6w, sd 2100 ft. Barker et al's Major 1, C SE SW 34-5-6w, spd and sd. Godley Oil Co.'s Woodworth 1, C NE NW 36-5-4w, sd 495 ft. W. E. Norton's Unknown 1, SEc SE 7-5-9w, rig. Cherry & Coush's Seay 1, NEc NW NW 4-7-5w, sd 1390 ft. C. R. Heacock's Cox 1, NEc SE 17-5-8w, lcn.

KAY COUNTY—Day Oil Co.'s Vandatta 1, SWc NW 8-26-2w, set cas td 3710 ft. Hickman & Barnhart's Sheets 1, C NW SW SE 25-29-2w, sd 805 ft.

KIOWA COUNTY—Connor et al's No. 2, NEc NW NW 34-7-16w, run cas 976 ft. Aubynne Oil Co.'s No. 1, SWc NE 3-7-17w, dr 2865 ft. Alcorn Oil Co.'s No. 1, NEc SE SE SW 13-7-16w, sd 1650 ft.

LINCOLN COUNTY—P. & R. Corp.'s Hainzig 1, SWc NW SW 14-13-6, dr 2600 ft. Douglas Oil Co.'s Ewing 1, NWc 7-13-3, sd 2965 ft. J. C. Cook's Richardson 1, SWc NW SW 8-12-5, dr 2610 ft. Eugene Coste & Co.'s Ross-Fortune 1, SEc NW 26-12-2, sd 2915 ft. Wilcox O. & G. Co.'s Smith 1, SEc SW NE 12-12-3, dr 2400 ft. F. O. Howarth's Harris 1, SEc NE 22-15-2, sd 2880 ft. Santrock Drlg. Co.'s No. 1, SEc NW NW 17-15-3, sd 920 ft. Ruby et al's Cull 1, NEc NW 36-15-4, fsh 2890 ft.

LOGAN COUNTY—Skelly Oil Co.'s Newman 1, NWc NW 32-19-3w, sd 2318 ft. Oklahoma Drlg. Co.'s Honson 1, SEc SW 36-15-2w, sd 1716 ft. Franklin Oil Assn.'s Moore 1, NWc SE SE 35-17-4w, sd 2130 ft. McMunn & Nixon's Fields 1, SWc NE SE 35-17-4w, rig. Haley & Pioneer Pet. Co.'s Quair 1, SWc SE 33-18-3w, rig rebuilt. Blackford O. & G. Co.'s Lair 1, C S L N½ SE 28-16-1w, fsh 750 ft. Gilliland Oil Co.'s Ohm 1, C NW 5-19-2w, fsh 3050 ft. Magnolia Pet. Co.'s Pritchard 1, NWc 23-15-1s, dr 2950 ft.

LOVE COUNTY — Driller Syndicate Oil Co.'s Wilson 1, NWc SE 11-7-2w, sd 2830 ft. Simms Oil Co.'s Starritt 1, SEc NE SE NE 26-6-3w, changing to rotary, td 2332 ft.

MAJOR COUNTY—Texas Prod. Oil Co.'s Basin 1, SWc 6-22-14w, spd and sd. Bradstreet Oil Co.'s Ratcliffe 1, C SW 9-22-9w, r 3495 ft. Frantz & Slick's Gray 1, C NW 36-21-11w, sd 1000 ft.

PONTOTOC COUNTY — Harper et al's Dener 1, NWc SE SE 19-6-7, fsh 3000 ft. Smith et al's Norris 1, SWc SE 34-4-6, sd 2430 ft. Riverside Oil Co.'s McFarland 1, NWc NE NW 4-5-5, sd 650 ft. C. J. Wrightsman's Floyd 1, SWc NW NE 24-4-4, cas trouble 2720 ft. Galloway et al's Hays 1, NEc SE NW SW 13-3-6, sd 1160 ft. Craig et al's Starritt 1, NWc

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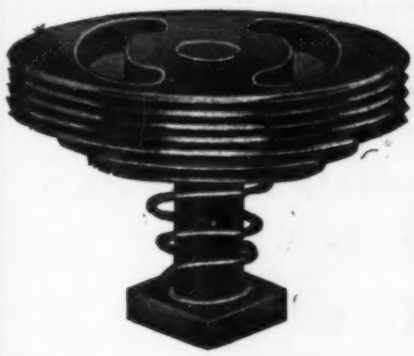

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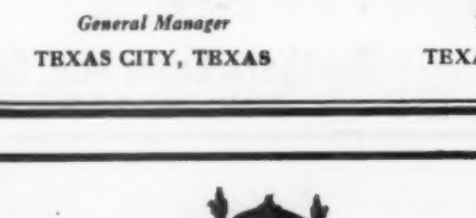

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Send For Bulletin B-7

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NE 5-4-5, sd 600 ft. Brinson et al's Brown 1, SEc SW SE 32-5-5, dr 890 ft.

OKLAHOMA COUNTY—Firestone O. Co.'s School 1, NWc SE 36-11-3, sd 4479 ft.

POTTAWATOMIE COUNTY — Ossie Oil Co.'s Howell 1, SWc NE 17-10-2, sd 3250 ft. Davis Detrick's McGathey 1, SEc 10-6-2, sd 3850 ft. H. C. Guinnup et al's Floyd 1, SWc SE 12-11-3, sd 3670 ft. North American Oil Co.'s Madgett 1, NWc 25-10-4, sd 460 ft. Maud Oil Products Co.'s Yinson 1, NEc SW 18-7-4, co 2935 ft. McMann Oil Co.'s Neghan 1, SWc NW 19-7-4, sd 100 ft. Day Oil Co.'s Bell 1, SEc NW NE 9-5-3, sd 3637 ft. Halmond Osmond et al's Fiddler 1, SEc NW 4-5-5, sd 545 ft.

ROGERS MILLS COUNTY — Twin Hills Oil Co.'s McClure 1, NWc 15-16-26w, sd 4310 ft. Trio Oil Co.'s No. 1, SEc NW SW 3-13-26w, sd 3060 ft.

SEMINOLE COUNTY — Maxwell et al's Charty 1, C NE NW 33-6-6, co 2275 ft. Link Oil Co.'s Carolina 1, C SE NW 14-6-7, sd 2840 ft. T. B. Slick's Sanny 1, 18-6-7, dr 3922 ft. Wm. McDougall's Dindy 1, C SW SW 30-6-7, co 3350 ft. R. F. Garlands Farlin 1, C NE NW 6-6-18w, sd 1390 ft. Keener O. & G. Co.'s Harjo 1, C SE SE NW 14-11-7, lcn. Gillette et al's Cudjo 1, C NE NE SE 35-9-6, dr 3830 ft. Transcontinental Oil Co.'s Davis 1, NEc SE 22-7-7, dr 1250 ft.

WASHITA COUNTY—McCoy et al's Praeters 1, C SW SW NE 9-8-15w, sd 3115 ft.

WOODS COUNTY—Victor Oil Co.'s Van Buskirk 1, SWc SE 10-25-15w, sd 960 ft.

Kansas Wildcats

BARBER COUNTY—R. B. Brown's No. 1, NWc SW NE 33-30-14w, sd 3741 ft.

BARTON COUNTY — Cheyenne Oil Co.'s Sooy 1, SWc SW 27-18-12w, sd 3525 ft. Haynes et al's No. 1, NWc 21-12-12w, sd 2100 ft. Mountain States Oil Co.'s No. 1, SEc NE 22-18-13w, sd 3685 ft. Huffine et al's Smith 1, C NE SW 21-19-12w, dr 875 ft.

CLARK COUNTY—Watcham O. & G. Co.'s Morrison 1, SEc NE NE 2-22-1w, sd 4918 ft.

COFFEY COUNTY — Sunbeam Pet. Co.'s Andrew 1, NWc NE 30-20-15, rig. Manhattan Oil Co.'s Elliott 1, NWc SW 14-33-13, sd 350 ft. Braden Bros.' Beyer 1, SEc NW 13-22-13, spd and sd.

CLOUD COUNTY—Livingston et al's Murdock 1, NEc 7-6-4w, sd 365 ft.

FINNEY COUNTY—Garden City O. & G. Co.'s No. 1, Wann, SEc SE 36-21-20, sd 2890 ft.

GEARY COUNTY—Liberty-Texas Oil Co.'s Wright 1, NEc 9-12-6, sd 750 ft; Foster 1, NEc SW 3-12-6, sd 2000 ft.

GOVE COUNTY—Keyes Bros. & Marine's Unknown 1, NWc SW 23-13-26w, lcn.

GRAHAM COUNTY—Keyes Bros. & Marine's Taxton 1, SEc NW 23-8-24w, dr 1850 ft.

JEFFERSON COUNTY—Northern Counties' Edwards 1, SEc NW NW 11-8-9, sd 3398 ft.

KINGMAN COUNTY—Hale et al's Graber 1, SWc NW 34-27-7, set cas 2543 ft.

LABETTE COUNTY—Ark Fuel Oil Co.'s Sparks 1, NEc SE SE 14-31-17, sd 1100 ft.

LINCOLN COUNTY—Berry & Rosenthal's Lambert 1, C NW 31-12-10w, sd 3258 ft. Amerada Pet. Corp.'s Crawford 1, NEc SW SE 16-11-7w, set cas 2875 ft. Equity Oil Co.'s Jellison 1, NWc SE 19-13-9w, sd 2790 ft. Scott & Collins' Stone 1, SEc SW NE 19-11-6w, sd 500 ft.

NEMAHA COUNTY — Nemaha O. & G. Co.'s Meyers 1, NWc 19-3-11, sd 3250 ft.

OSAGE COUNTY — Rodgers & Bittle's Bertha 1, SEc NW 22-17-16, lcn. Mul-Vit Dev. Co.'s Neil 1, NEc NW SW NE 8-17-17, sd 2735 ft. Baker et al's No. 1, C SE SE 3-10-14, sd 260 ft.

POTTAWATOMIE COUNTY—Crawford et al's Stewart 1, C E L SE SE SE 17-19-12, rig; Greishabert 1, SWc SE SE SW 13-9-12, rig; St. Mary 1, SWc 11-1-12, sd 2290 ft.

RICE COUNTY—Stamey's Barnes 1, SEc NE 21-20-6w, sd 3075 ft. Jasper & Beschka's Walker 1, SWc NE 10-18-6w, dr 3618 ft.

RILEY COUNTY—Pawnee O. & G. Co.'s

Marks 1, SEc NE NW 26-10-6, sd 1700 ft.

ROOKS COUNTY—Keyes Pet. Co.'s Sandon 1, NW SW SE 7-8-20w, spd and sd.

RUSSELL COUNTY—Pomeroy et al's Cooper 1, SEc 33-12-11w, sd 2562 ft. Alcorn Oil Co.'s Seller 1, SEc 36-15-12w, sd 3365 ft.

SALINE COUNTY—Thrall et al's No. 1, SEc NE NW 15-15-4w, sd 1010 ft.

SEWARD COUNTY—C. T. Dev. Co.'s Woods 1, NWc NE 34-34-34, sd 700 ft. Seward O. & G. Co.'s Selsey 1, NEc NW 2-33-3, sd 2427 ft.

TREGO COUNTY—Keyes Pet. Co.'s Walsh 1, NWc SE 5-11-25w, sd 1450 ft; Walsh 2, SWc NE SW 5-11-25w, sd 1550 ft; Davis 1, NEc SW 16-11-24w, pul 6-inch pipe 3030 ft.

WABAUNSEE COUNTY—Williams et al's No. 1, NEc SW 9-5-5, sd 3600 ft.

WILSON COUNTY — Rhodes & French's Brown 1, NWc SW NW 2-27-2, sd 800 ft.

WOODSON COUNTY—Equity Oil Co.'s No. 1 Soloman, SEc NE NE 30-26-17, sd 3340 ft. Herman & Oghisby's Lauber 1, SWc 4-26-14, sd 850 ft. Skelly Oil Co.'s No. 1, C W L SE SW 13-24-15, dr 1657 ft.

Arkansas Wildcats

COMPLETION

Company, Well and Location	Initial Production Bbls.	Depth
Union County—		
Walker et al's Williams 1, 36-17-14.	*	2623

DRILLING REPORT

BRADLEY COUNTY—Rhodes et al's McQuistian 1, 36-12-9, rig.

CLARK COUNTY — Southern Drlg. Co.'s Burrows 1, 35-10-20, sd 714 ft.

COLUMBIA COUNTY—Arkansas Fuel Oil Co.'s Hardy 1, 1-19-22, dr 65 ft. Hargis et al's Souter 1, 24-17-22, sd 35 ft. Heath Trust's Williams 1, 1-19-21, sw, sd 2175 ft. Johnson et al's Sailles 1, 18-17-22, sd 915 ft. Kemp et al's Emerson 1, 7-19-19, sd 2260 ft. Ky-Ark Pet. Co.'s Doss 1, 29-19-20, sd 20 ft. Magnolia Development Co.'s Lindsey 1, 30-18-19, rig. Magnolia Pet. Co.'s Watson 2, 36-15-20, deep test, Stephens Field, dr 2610 ft. Meier et al's Gantt 1, 15-17-22, dk. Moore et al's Fullenwilder 1, 12-17-22, tested dry 2252 ft. Phillips et al's Davis 1, 14-18-21, sd 2720 ft.

DALLAS COUNTY—Durr et al's Riggs-Matlock 1, 33-8-15, sd 2400 ft.

DREW COUNTY—Graves et al's Karnes 1, 20-14-6, sd 2385 ft. King & Wilson's Trotter 1, 12-13-6, sd 1250 ft. Rhodes et al's Harrison 2, 5-13-8, dr 1400 ft. Spooner et al's Meyer 1, 4-16-17, sd 50 ft.

GRANT COUNTY—Arnold & Hill's Meeks 1, 8-4-11, dk. Haley & Evans' Pike 1, 8-6-11, sd 50 ft.

HEMPSTEAD COUNTY—Grassy Lake Oil Assn.'s Gun Club 1, 27-12-27, dr 500 ft. Hempstead Oil Co.'s Nicholls 1, 17-11-25, sd 1980 ft. Wooten et al's Walker 1, 22-11-24, set 10-inch 80 ft.

LINCOLN COUNTY—Bennett et al's Jones 1, 33-10-6, dk. Cambrian et al's Fee 1, 3-9-8, sd 1850 ft.

LITTLE RIVER COUNTY—Gaines et al's Thomas 1, 16-13-29, sd 3787 ft. Grote et al's Allen 1, 2-13-29, dr 3050 ft. Johnson et al's Hawkins 1, 10-11-31, to resume dr 1350 ft.

MILLER COUNTY—Norton et al's Thomas 1, 12-20-28, dr 20 ft.

NEVADA COUNTY—Garrett et al's Snell 1, 10-12-23, dk. Humble Oil & Ref. Co.'s Fincher 1, 6-15-22, set 10-inch 90 ft. Ouachita Valley Oil Co.'s Phillips 1, 30-14-20, set 6¾-inch 2011 ft. Zingg et al's Groves 1, 22-10-23, dr 1075 ft.

Ouachita County—British Allied Synd.'s Larkin 1, 6-13-18, dr 485 ft. Bray & Hawthorne's Copenhagen 1, 13-14-17, sd 2530 ft. Crusader Oil Co.'s Snow 7, 22-13-16, abn 2503 ft. Dee et al's Criner 1, 21-15-19, dk. Reynolds & Thompson's Graves 1, 16-14-18, dr 2075 ft.

UNION COUNTY—Berry et al's Union S. M. 1, 14-19-11, sd 1770 ft. O'Brien et al's Fee C-1, 13-19-17, dr 2215 ft. Liberty Oil Co.'s Davis 1, 31-16-14, dr 1950 ft. Mathews et al's Teele 1, 11-19-12, dr 1675 ft. Natural Gas & Pet. Co.'s Frazier 3, 1-18-16, coring 2952 ft.

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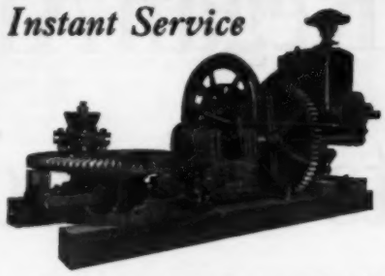

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COMPLETIONS

Company, Well and Location	Initial Production Bbls.	Depth
Natchitoches Parish—		
R. O. Roy & Co.'s Durr 1, 27-10-10	*	....
Webster Parish—		
Arkansas Nat. Gas Co.'s Frazier 1, 27-23-11	*	2690

DRILLING REPORT

BIENVILLE PARISH—Roxana Pet. Co.'s Bryan 1, 30-17-6, dr 2090 ft.

BOSSIER PARISH — Arkansas Nat. Gas Co.'s Bolinger 1, 32-23-11 dk. Atlantic Oil Prod. Co.'s Bodcau 2, 24-23-12, sd 2636 ft. Coker et al's Rhodes 1, 31-21-11, dk. Ferrel et al's Atkinson 1, 4-18-12, rig. Skannal et al's Roscoe 1, 14-17-12, to test 2419-25 ft. Wetherbee et al's Holland 1, 9-22-11, rig.

CADDO PARISH—Fortuna Oil Co.'s Mitchell 1, 17-18-16, dk. Haynes Bros.' Louisiana L. S. & P. Co. 1, 8-19-16, dr 500 ft. Richardson Oil Co.'s Bickham 1, 15-18-15, sd 2000 ft; Bostick 1, 11-18-15, set 10-inch 159 ft. Stith et al's Pitts 1, 11-23-16, sd 542 ft.

CALDWELL PARISH — Claiborne-Lincoln Synd.'s Fields 3, 22-19-5, sd 1725 ft. El Dorado Chief Oil Co.'s McElwee 1, 13-22-7, dr 2400 ft. Evans et al's Taylor 1, 5-19-5, dr 2110 ft.

DE SOTO PARISH — Daniels & Roscoe's Pollack 1, 36-11-24, sd 2948 ft. Tarver et al's Conley 1, 2-14-10, rig. Ulrey et al's Deas 1, 23-11-12, lcn; Patterson-Robinson 1, 22-11-12, dr 750 ft. Wright et al's Sutherland 2, 19-12-14, sd 2614 ft.

GRANT PARISH—Grant Parish Pet. Co.'s Ball 2, 1-7-1w, rig sd.

LA SALLE PARISH—Bur-Ban Oil Co.'s Urania 2, 21-11-2e, sd 2090 ft. Columbia O. & G. Co.'s Urania Lumber 1, 22-10-2e, sd 200 ft. Gulf Ref. Co.'s Urania 1, 22-11-2e; Urania A-1, 22-11-2e, sd 1022 ft. Stovall Drlg. Co.'s Louisiana-Central Lbr. 2, 27-10-2e, sd 2000 ft. Urania Pet. Co.'s Urania Lbr. Co. 5, 18-10-2e, dr 25 ft.

LINCOLN PARISH—Buckner et al's Barrett 1, 13-20-3w, set 8-inch 1050 ft.

NATCHITOCHES PARISH—R. O. Roy & Co.'s Ballard 1, 22-10-10, rig.

WEBSTER PARISH — Belchic & Laskey's Martin 1, 34-23-10, set 10-inch 460 ft; P. W. Lumber 6, 33-23-11, show gas 2670 ft; to deepen. Butler & McMurray's Weaver 1, 35-23-11, set 12½-inch 225 ft. Fortuna Oil Co.'s Nickerson 1, 23-23-10, set 12½-inch 220 ft; P. W. Lumber 1, 27-23-10, dk. Kinnedy et al's Ambrose 1, 19-20-10, dk. McDowell et al's Hortman 1, 15-20-10, to set 6-inch 2510 ft. Louisiana Oil Ref. Corp.'s Armor 1, 21-23-9, dr 1200 ft. Palmer Corp.'s Miller 1, 29-21-10, dry 3461 ft; to deepen. The Texas Co.'s Lewis 1, 25-23-10, rig. J. K. Wadley's Porter-Wadley Lbr. 1, 31-23-9, set 6-inch 2650 ft.

WINN PARISH — Galloway & Arrendale's McCarty 1, 5-12-1w, sd 1600 ft.

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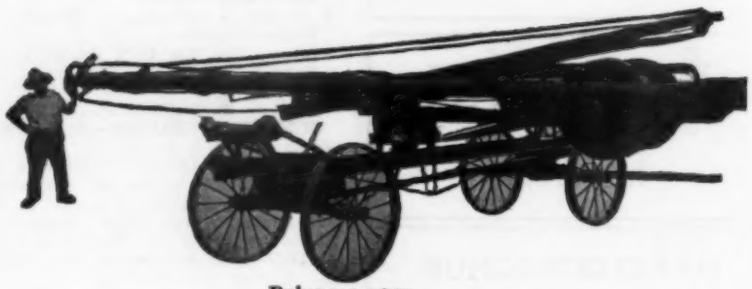

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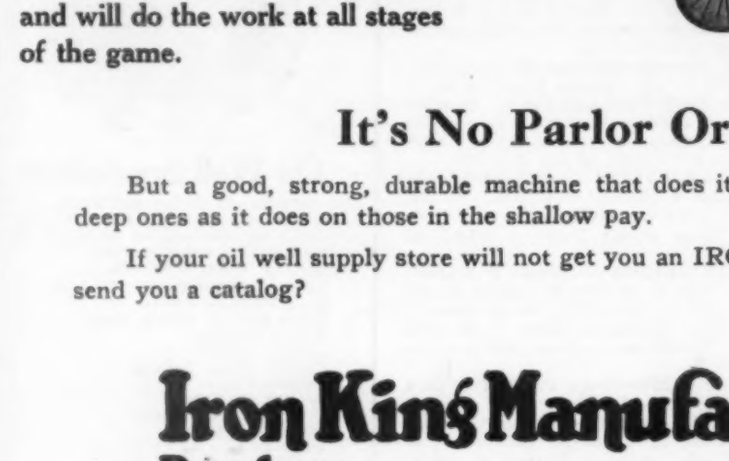

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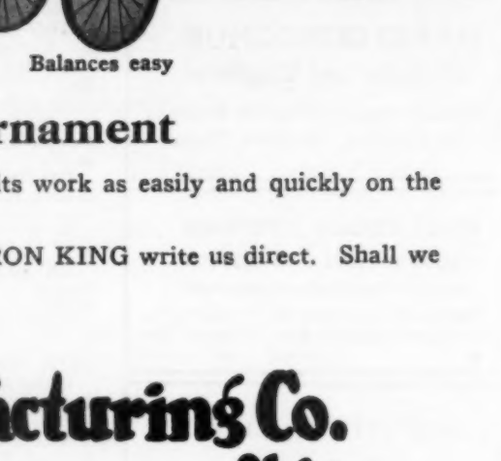
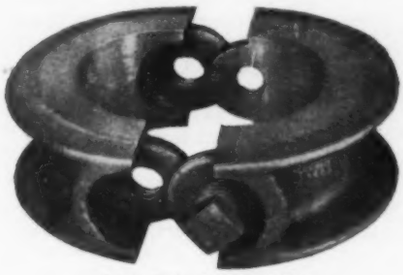


All set

NEW EQUIPMENT, CATALOGS, BULLETINS, BOOKS

Safety Collar Helps To Maintain Shaft Alignment

Attention to the loss of power generated in the average industrial plant has given rise to changes in power transmission and the development of more efficient mechanical means of reducing this loss. Among the more recent devices to be brought out in this



Link Belt Safety Collar

connection, is a malleable iron safety collar, manufactured by the Link-Belt Company, 910 S. Michigan Avenue, Chicago, Illinois.

This safety collar is intended to maintain the proper alignment of such equipment as pulleys, shaft bearings, hangers, etc.

Great strength, toughness, durability, and light weight have been incorporated in the collar, in addition to the new design which permits the collar to split in two pieces. This feature affords ready and economical installation or adjustment.

Exhaustive tests made with the collar have proved it to be impervious to shocks and strains encountered in heavy duty service.

The material of which it is made possesses unusual wear and rust resisting qualities. This extends its sphere of usefulness to installations where the atmospheric conditions contribute to rust or excessive abrasiveness. The set-screw by which the collar is firmly attached to the shaft, is flange protected.

This collar should find wide use in power plants in different fields throughout the country and should be a great asset in keeping power equipment in proper alignment.

The Link-Belt Company will provide additional details.

Williams Valve Has New Reversible Features

A stop valve said to have special features of durability and serviceability is among the late additions to the D. T. Williams line of valve specialties. This valve is known as Iroverso.

Distinctive life prolonging features of the valve are given as:

Reversible disc and seat: Both the disc and seat can be easily reversed, offering new seating surface without delay, increasing the valve life twofold and saving the cost of new parts.

Easy to grind: Regrinding is another method of seat renewal which the user may take advantage of before reversing either the disc or seat. A little oil and emery or other fine abrasive is the only material needed. With the disc pinned to the stem and properly guided by the hub in the neck of the body, followed by a few turns of the hand wheel, a new seat bearing is easily obtained.

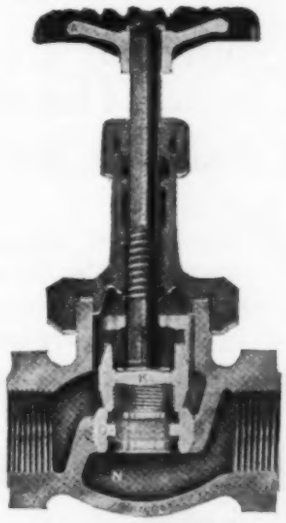
Renewable: If replacement ever becomes necessary, a new disc or seat can be obtained at reasonable cost. A wrench for the disc and a flat or square bar to engage the seat lugs are the only tools required in the removal of these parts, and like the regrinding operation it is not necessary to take the valve out of the line.

The disc is lock-nutted to the stem in all sizes—is reversible in all sizes from three-fourths inch and up, while the seat ring is reversible in every size.

A high-lifting disc and full body insure a free flow of fluid and reduce friction.

The stem is gland packed with asbestos, wire inserted packing within a heavy packing nut, and is fitted with a malleable iron, non-heating, easily operated hand wheel firmly lock-nutted to the stem.

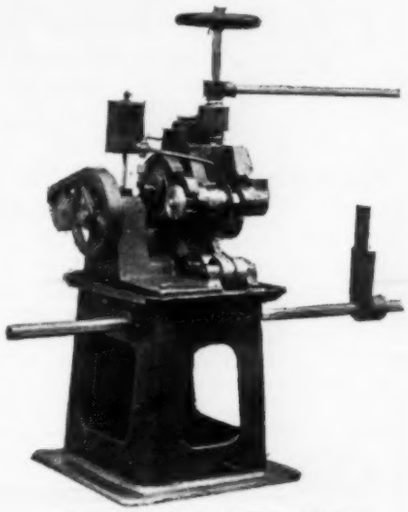
Iroverso is intended for steam, water, oil, gas, and is adapted to the many varied industrial, chemical, oil refinery and power plant uses within the range of its capacity, it being guaranteed for 150 pounds working pressure, maximum temperature 450 degrees Fahr.



Iroverso Stop Valve

Special qualities of the disc and seat in the Iroverso valves are obtained by using niculanium, a hard, tough, nickel alloy.

The D. T. Williams Valve Company, Cincinnati, Ohio, will provide further information and literature on request.



Bignall & Keeler Rolling Cutter

Rolling Cutter for Use With Drill Pipe or Casing

A machine designed to cut off pipe or tubing from one-fourth to four inches is offered users of oil field equipment by the Bignall & Keeler Machine Works, Edwardsville, Illinois.

Arrangement of the rolling cutter permits passing the pipe under the cutter from either side.

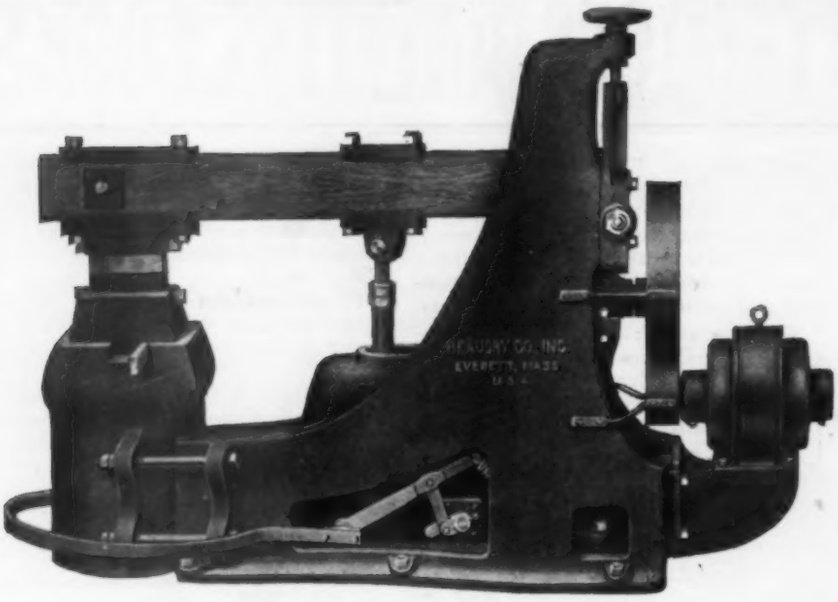
Cutting is accomplished by the lowering of the cutter which allows the pipe to bear evenly across the rolls. The cutter is adjusted by the hand wheel until it just clears the pipe, then by using the lever which terminates in a nut having a coarse pitch thread, the cutter can be quickly raised and lowered.

The rolls are provided with roller bearings. The cutter shaft has two bearings with bronze bushings.

Weight of the cutter is 750 pounds and it occupies floor space 23 by 25 inches.

Literature and other information will be supplied upon application to the company.

The OIL WEEKLY will print on this page data on new oilfield equipment, improvements on old equipment, news of new catalogs, bulletins, etc. This department is handled exclusively by the editorial department and has no connection with the advertising department. Data will be carried on anything which the editorial department thinks of interest to our readers, regardless of whether or not the manufacturer is an advertiser in The OIL WEEKLY.—Publisher.



Beaudry Helve Hammer

Helve Hammer Adapted To Field Machine Shops

A helve hammer that can be used in oil field machine shops is being announced by the Beaudry Company, Incorporated, Parkway, at Vine Street, Everett, Massachusetts.

The Beaudry air-cushioned helve hammer, as it is called, consists of a well designed, semi-enclosed frame upon the rear of which is an adjustable yoke supporting the helve at its pivoted end. Within the frame is the air compressor cast in one piece with the helve actuating cylinder, the piston on which connects with the helve. A rotary valve, operated by the treadle, is located between the two cylinders for controlling the blow.

Belt or motor-drive can be used with the helve. When belt-driven, tight and loose pulley and belt shifter form part of the unit, the belt being shifted to the loose pulley only for long stops. When motor-driven, the tight pulley is replaced by a gear engaging the pinion of the motor which is supported upon a properly designed bracket secured to the hammer frame which allows the hammer to be placed in any location desired, independent of the line shafts. The crankshaft runs in bronze ring-oiling bearings insuring efficient lubrication.

When adjusting the dies for different thicknesses of work, four nuts are loosened on the pivot yoke and the hand wheel on the top of the machine is turned the proper amount to raise or lower the yoke after which the four nuts are tightened. The connecting rod of the helve is adjusted by a turnbuckle. These adjustments the operator makes without help. This is a decided improvement over the usual mode of adjustment in helve hammers.

The pivot of the helve consists of hardened steel centers, easy of adjustment, and affords means for entirely eliminating side play of the dies so that they may always register with each other, thereby giving perfect alignment, which makes them particularly satisfactory for die work.

Four sizes are available, ranging from 40 to 200 pounds and with blows per minute of from 230 to 300.

More complete information will be furnished by the company, upon request.

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"ALL SERVICE" Rubber Covered and Stitched Belt has proven its worth as a *Drilling, Pumping* and *Power Belt* throughout the entire oil fields.

You will *Reduce* your belt *Costs* if you buy our "ALL SERVICE" belt. This should interest you!

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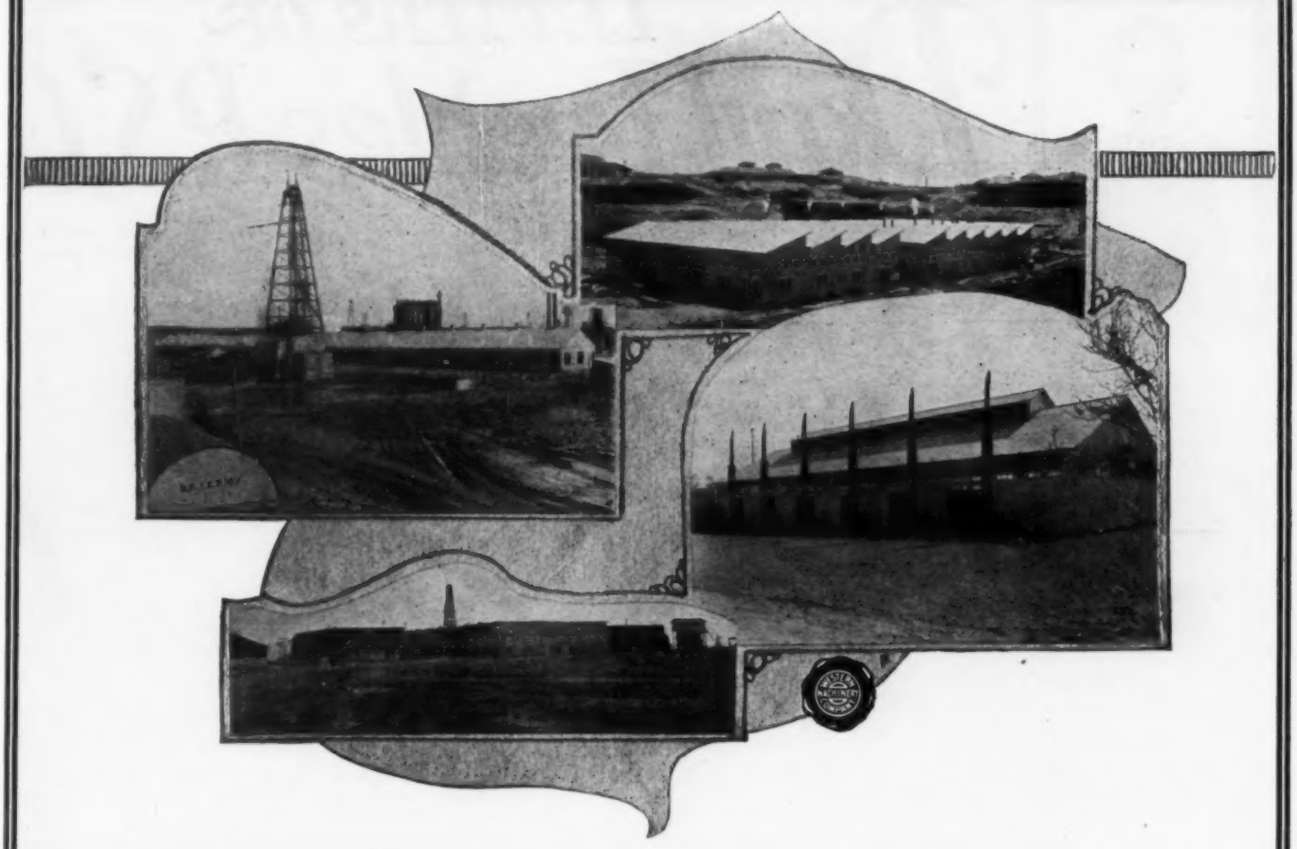

7,400 Horsepower of WESTERN DUPLEX GAS ENGINES

Efficient Dependable Power

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Say you saw it in The Oil Weekly

LETTERS OF Paul Peebles P.S.G.

mr. calvin coolige, pres
the white house
washington, D. c.
deer cal:

I just gotten a letter from jelmer thomas up in chicargo whitch yu mite no if yu hav ever bin 2 that citty on a trip or sumthin like I hav. he wood be a good man for yu 2 meet up with cal on account yu do not talk mutch and that is the kind of peeple that is the most satisfied when they are talkin 2 tommi, & I am shure that he wood like as good a lissener as yu.

but what I am writin 2 yu about cal is this here conversation kommitty bizness whitch yu hav organized. I am glad 2 no that yu hav ackted on mi sughestun whitch I made 2 yu wunst that this ort 2 be did, but I am susprised cal that yu did not recolleck that I want a job whilst yu was makin the appintments on the committy. yu no that I tole yu that I wood be willin 2 giv up sum of mi vallerable time 2 the publick good at the rite sallery & expentses munny.

yu r ded rite cal about it bein need for conversation of oil if it is goin 2 be enny left 2 run automobiles & bern in ships in the navvy & airyplanes. but 1 of the things whitch I cant understand is why we shud be werried about oil for the navvy if we r goin 2 do away with enny navvy atall like some folks is hankerin.

but sinct yu hav alreddy appointed the committy I gess yu do not need no advist from me & it aint no chanct mabe for me 2 be put on the commity at this late day, but all the same if I can git away I am goin 2 go 2 atlantick citty 2 meet with them if they need sum reel expert advise like I am abul 2 giv them.

whilst yu r conservin the oil, cal, yu mite tell sum of the departments of yore goverment about it. if yu dont watch out the atty genral is goin 2 ceese & desist the big refinries from usin the crackin prosesses under the restrant of trade on account the ones whitch owns the patents can not sell the rites 2 others. I gess mabe cal if they do that the ones whitch owns the patents will git mad & say 2 all of the others that they cannot use the prosesses for nuthin & then it wont be but a few plants crackin oil. & then where will we bee? I ast yu that. of corse if they cant crack it there will be moar fuel oil for the navvy 2 bern in the ships, but if they was 2 figger on gittin sum tanks 2 put the oil in it wood be a nuther revverlushun in the senate & moast peeple wood hesitate 2 sell the govt. enny tanks after what heppen 2 dohenny.

also cal in case yu r werried about the prise of gasleen now that the election is over & yu hav made it so uncomfortable for the demmycrats & laffalot, yu mite interdoose the atty gen'l 2 the sec. of the Int. & get them 2 talkin about how mutch the Int. dept. charges for drillin rites in the osages. it mite be luminating.

but gettin back to the maine ? about the conversation committy. what do yu gess they r goin 2 do? yu cood save oil bi makin it a law 2 hav gasleenless days evry week like we had meetless days in the war & mabe it wood help 2 fix it so that all automobeel bandits wood hav king's excuse for a few minnits 2 start there engines so that they wood not leev them runnin whilst they was pullin a job. also it mite help sum 2 hav the poleese lay off of cars parked in the parks so that the jellies & shebas wood not hav 2 go so far out in the cuntry 2 git sum quiet. also yu mite hav the post offis go back 2 horses 2 haul the male around town & cut out the air male servise.

but as 1 statesman 2 anuther I wood pint out 2 yu cal that if yu cut down the use of gasleen yu will rune the country. if it was not for the oil bizness the legislashures wood hav 2 dig up sum kind of a new skeem 2 git taxes. that wood call for them tryin 2 think & it is dangerus for a legislashure 2 try 2 think because it aint no tellin what they will do whilst they are in that condishun. it is a hole lot better for the cuntry 2 let them alone like they are while they are happy.

so cal the anser is 2 find sum moar oil sumwheres & if it can't be done I hav got a skeem up mi sleeve that will save the hole situashun. but it will be sutch a revolushun that I am hesitatin 2 spring it on yu & the cuntry just yet until we see how the conversation committy makes out.

if yu hav enny influents with them cal I wish yu wood tell them that it wood be a good ideer 2 hire me & jelmer thomas for there geeologistises & we will see to it that enuff feelds is found 2 keep up the supply threw the next yere. yu no it has bin a hole lot sed about how soon the oil wood be all gone, but the next time yu hav 2 hav yore gas tank filled in wash, just remember that too sents of the 18 yu hav 2 pay is bein applied 2 yore own salry on account of that is the tax, & then see if yu think that prise shows a shortage when yu think about the prise of other things. them 2 sents that is pade in2 the treas. cal is the biggest single prophet it is on that gasleen unlessen mabe it is frate. but of corse what evryboddy wants is 2 no that there will be boar gasleen all the time & mabe the prise go down sum moar. & it is up 2 you 2 keep the cuntry satisfied with a conversation committy, whitch is the reesen that yu ort 2 hire me 2 be geologist & find sum moar feelds for yu.

the onli reesen I menshun tommi in this conneckshun cal is that he written 2 me about it & if yu need 2 yu can make the other 1 him, but reely yu onli need me. but a good way wood be 2 hav I and tommi & also Rthur napp on a geeology committy. I wood do the work, tommi cood tell about it & Rthur cood draw the pitchers of it, whitch wood make a good comebinashun, eh cal?

well cal I seen in the pappers sum time back that sum of the big men in the oil bizness had endorsed yore stand on this ? and now I hav made it unanimus. 1 thing in pertickular I want 2 congratlate yu on puttin work on the committy. now whenever yu want sum work out of yore conversation committy yu can jest ast him 2 resine.

well cal I hope yu can see now that yu hav did rong bi not givin me a soft job on the committy & can rectify yore errer before it is eternerlly 2 late. if yu want 2 rite 2 me the letter will be sent on 2 me if I go 2 atlantick citty so just sent it 2 me here in care of the postmaster at huston.

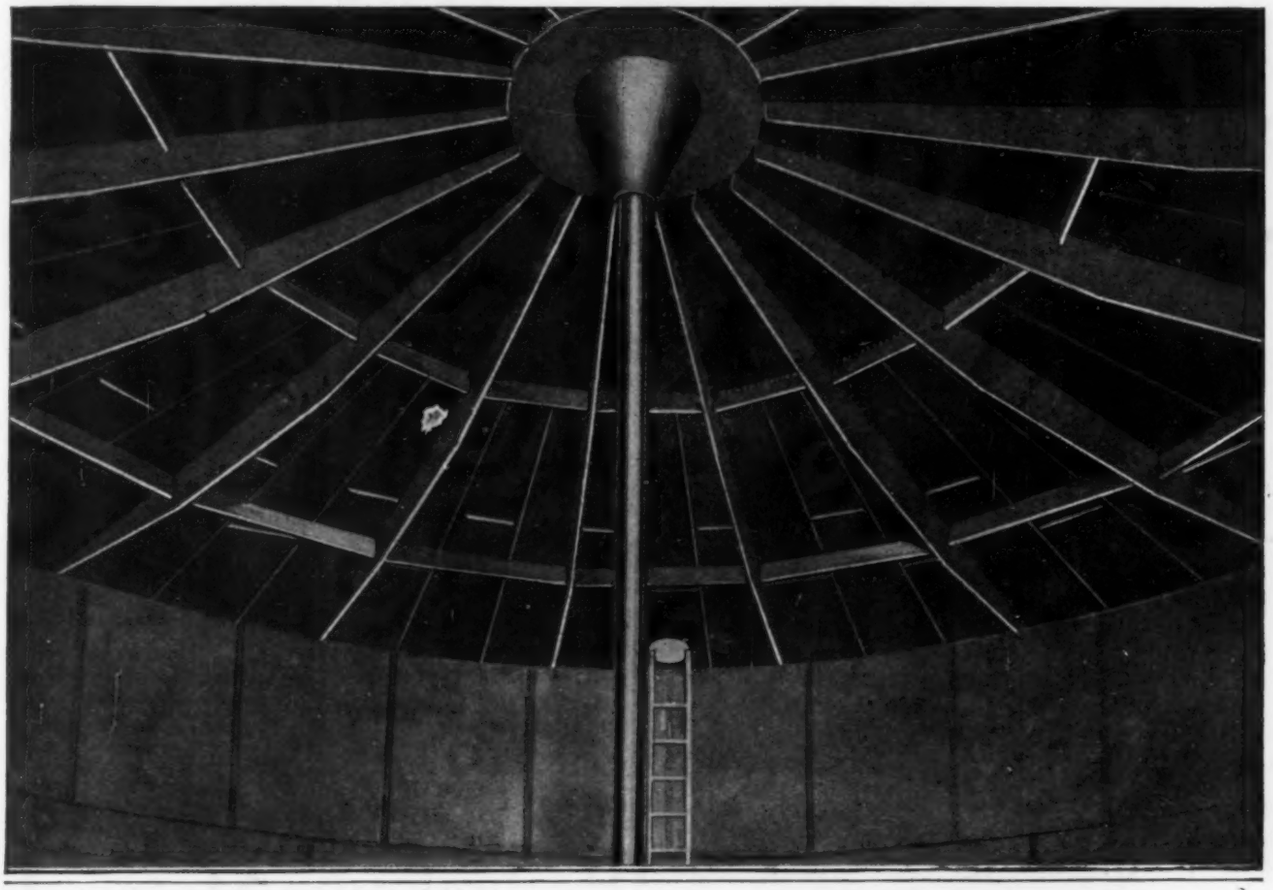
Cal the cuntry is blowed up unlessen sumthin is done about the oil bizness.

hopin yu r the same,

yores trewly,

Paul Peebles, psg & invener.

p. s. I forgotten 2 tell yu Rthur napp lives in philadelpha but he can be woke up if yu send yore letter 2 him bi speshial delivry. the last time I seen him he was down hear in huston workin on a cross werd puzzle whitch needed a 3-letter werd beginnin with "a" meanin "behind". I told him it was "aft" whitch was a little difrent from what he thought it was. pp



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The first tests in vapor tighting oil field tanks were made with Columbian Bolted Steel Tanks.

Now, from the 65 to the 10,000 barrel sizes, Columbian Improved, Portable Bolted Steel Tanks are regularly equipped with decks of vapor tight construction. From bottom to deck they have the same factor of safety as standard 55's.

Here is a photograph of the inside of a Columbian ten-thousand. The deck proper is the improved lap joint style with a square box flange atop and an angle flange below each lap joint—standard on all Columbians.

Then, on all sizes from 2,500 to 10,000 barrel inclusive the double reinforced lap joint deck has the additional support of a steel substructure. From a circular steel plate in the center, truss plate girders radiate to the tank's wall. These bolted to the turned down flange of the deck's lap joints and are cross tied with *Z*-bar plates. A heavy steel pole at the center gives extra support. At its top is a large steel cone welded to the center plate of the deck. The steel pole is telescoped and may be lengthened with a pair of jack screws to give the deck the proper pitch.

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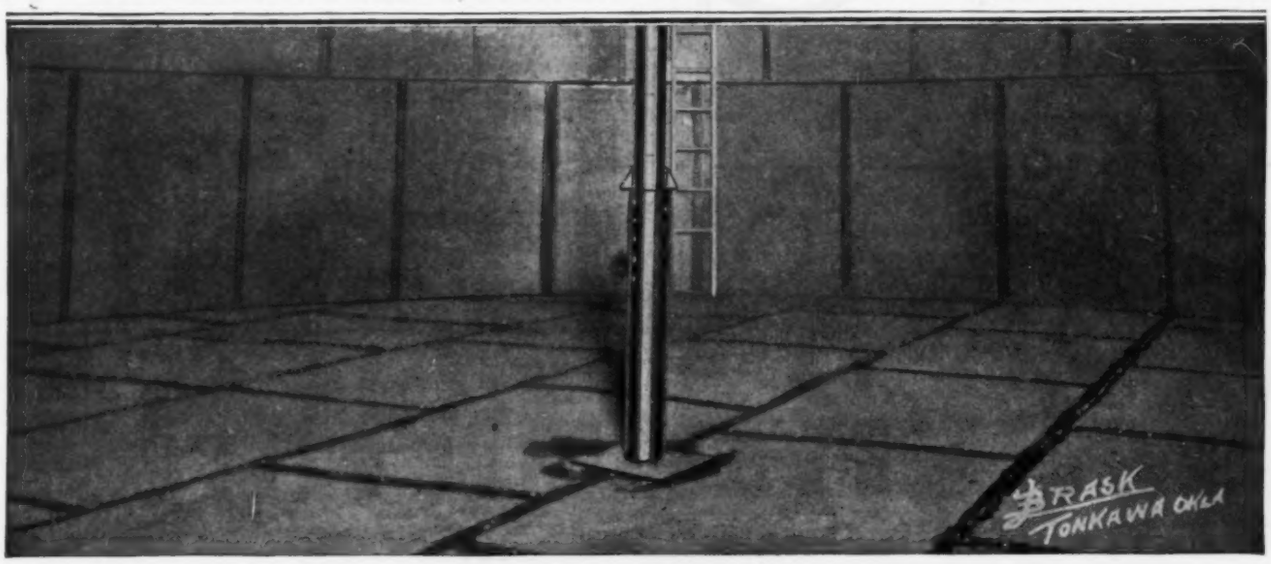

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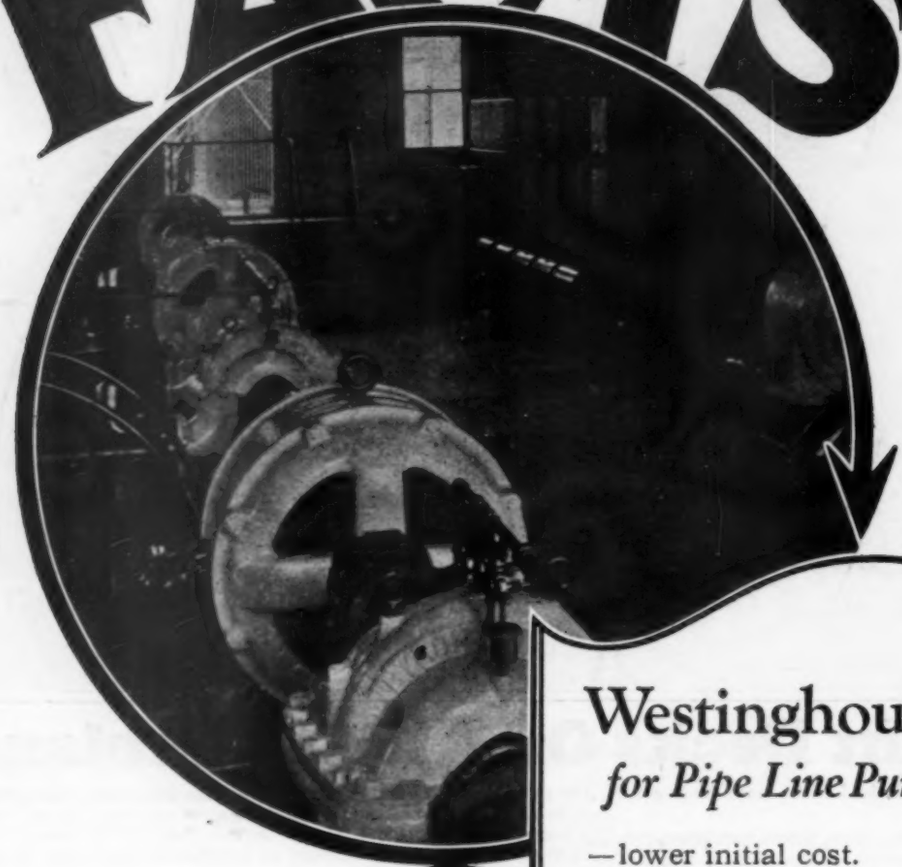

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He—Say, Mabel, may I come over tonight?

She—Sure, John, come on over.

He—Why, this is not John!

She—This isn't Mabel, either.

Casey—Look here, you little simp, before we begin I want you to know you're fightin' Casey O'Connor.

Pat—Yes, and after you come to, you'll find out you've been fightin' Pat Sullivan.

"John, I just got hold of your check counterfoils, and it was high time I did. Who is this Cash person you've been spending so much money on?"—London Mail.

"I have a noiseless typewriter in my office now."

"Better marry her, old chap, before she quits her job."—Judge.

"Do you think you can make my daughter happy?"

"Do I? Well, I wish you could see us in the parlor some night."—Ziffs.

Teacher: "Johnny, use Idaho in a sentence."

"Idaho lot rather answer some other question."—Missouri Showme.

"Mother, does the young man next door have a godfather?"

"Not that I know of, dear."

"Well, that's funny. Last night I heard him having an argument with somebody, and he kept on saying, 'My godfather'."—John Hopkins Blue Jay.

Father—Are you sure he loves you? That it isn't your money?

Daughter—He swore he worshipped me since he first saw me.

"Where was that?"

"At the beach last summer."

"Were you in a bathing suit?"

"Why, yes."

"He's after your money."—Carnegie Puppet.

"What is your salary as a saleslady?"

"Seven dollars a week."

"Surely you cannot lead a good Christian life on that!"

"That's the only kind you can lead on seven per."—Whiz Bang.

Salesman—Pardon me, sir, I have an attachment for your typewriter.

Manager—Well, don't bother her during working hours.—Notre Dame Juggler.

"What! Jim a second-story man? Why, I've always believed in him."

"But he's probably always stuck to his first one with you, dear."—Annapolis Log.

Willie—I looked through the keyhole last night when May's fellow was calling on her.

Father—And what did you find out?

"The electric lamp."—Michigan Gargoyle.

"Why is it that a red-headed woman always marries a very meek man?"

"She doesn't. He just gets that way."—Dry Goods Economist.

All Set

The prisoner was not professionally represented. Before proceeding with the case the judge said:

"This is a very serious offense you are charged with. If you are convicted it means a long term of imprisonment. Have you no counsel to look after your defense?"

The prisoner, in the most confidential manner, leaned toward the judge and replied:

"No, your honor, I have no counsel; but I have some very good friends on the jury."

"Courtin's mighty expensive," said one man to another. "My girl wants to go to the pictures and dances. What am I to do?"

"The same thing I do," said the other. "Meet her inside."—Tit-Bits.

First Waiter—How d'y'know they're married?

Second Ditto—How do I know? Why, didn't he pick up the quarter and leave the dime, with her lookin' right at him?—Judge.

Professor — Aren't you Mr. Smith?

Stude — No, sir, I'm Mr. Smith's twin brother.

"Ah, I see; what name, please?"—Notre Dame Juggler.

She—Since our engagement has been broken off, I will return the comb and brush set.

He—Why?

She—It will make parting easier.—Ohio State Sun Dial.

Philip—My man, I think you are one of the most self-controlled men I have ever seen.

Morris—Howcum?

"You seem to have an awful lot of trouble with your flivver. You get angry with it, and yet you never swear at it."

"Well, you see it's this way. I don't think the flivver is worth a damn."—Princeton Tiger.

Kind Traveler (seeing parked car)—Do you need any help?

Voice from Within—We are getting along nicely, thank you.—California Pelican.

"Why did you stop the car here?"

"Well, that sign says 'Fine for Parking,' and I agree with it."

"Darling, when you are away I have your picture in my mind."

"Oh, Eddie—How small you make me feel!"—Brown Jug.

"If I take the place, mum," asked the prospective cook, "will you get a cat?"

"Why, I think so, Bridget. Are you so fond of dumb animals?"

"Well, I ain't gonna have everything that happens blamed on me."—Louisville Journal.

The young husband could eat no more of his wife's dinner.

"That's a pity," she said, "for if you don't I shall have to give it to the dog!"

"Yes, it is a pity—it's such a nice dog!"—Tit-Bits (London).

One Inglewood wife told the members of her club that every time she quarreled with her husband she sent the children outdoors.

"And," added a catty member, "they are the healthiest children in the neighborhood."

"Nurse, blackberries d o n ' t have legs, do they?"

"Of course not, dear."

"Then Oswald's eaten a caterpillar."—London Passing Show.

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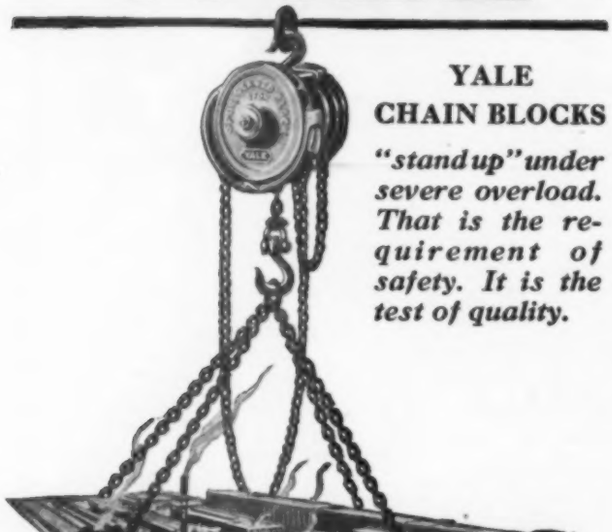

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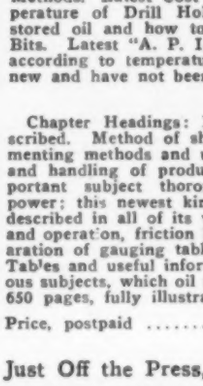

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Peden Iron & Steel Co.
Pelican Well Tool & Sup. Co.
Republic Supply Company
Rhodes Master Packing Co.

Paints—
Continental Supply Company
Peden Iron & Steel Co.

Panel Boards—
Westinghouse Elec. & Mfg. Co.

Patents—
Hardway & Cathey
Jack A. Schley
Jesse R. Stone

Pipe Grips—
Continental Supply Company
W-K-M Co.

Pipe—
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Continental Supply Company
W. E. Detlor
Frick-Reid Supply Co.
F. W. Heitmann Co.
Harrisburg Pipe & Pipe Bending Company
International Supply Co.
The National Supply Cos.
Oil Well Supply Co.
Peden Iron & Steel Co.
Reading Iron Co.
Republic Supply Company
Superior Tube Company
Williamsport Wire Rope Co.

Pipe Screwing Machines—
Buckeye Traction Ditcher Co.
California Pipe Line Machine Co.

Pipe Threading Machine—
Standard Engineering Company

Pipe Wrenches—
Continental Supply Company
Dunn Mfg. Co.
The Guiberson Corp.
LeBus Rotary Tool Works
Republic Supply Company

Portable Buildings—
Butler Mfg. Co.
International Derrick & Equipment Company

Portable Compressors—
Continental Supply Company
Sullivan Machinery Co.

Portable Drilling Rigs—
Bridgeport Machinery Co.
Continental Supply Company
Lee C. Moore & Co.
Oil Well Service Co.
Parkersburg Rig & Reel Co.
The National Supply Cos.

Pulleys—
Continental Supply Company
International Derrick & Equipment Company
Lee C. Moore & Co.

Pulling Machines—
Clark Machine Co.
Continental Supply Company
Iron King Mfg. Co.
Safety Pulling Machine Co.

Pumps—
Axelson Machine Co.
Bradford Motor Works
Continental Supply Company
D. & B. Pump & Sup. Co.
Frick-Reid Supply Co.
Gaso Pump & Burner Mfg. Co.
Goulds Manufacturing Co.
Lucey Manufacturing Corp.
National Transit Pump & Mach. Co.
Oil Well Supply Co.
Pelican Well Tool & Supply Co.
Republic Supply Company
The Reschke Machine Works Co.
Southern Engine & Pump Co.
Texas Oil Pump Co.
United Iron Works, Inc.

Pumping Powers—
Continental Supply Company
Frick-Reed Supply Co.
International Supply Company
Jensen Bros. Mfg. Co.
Kansas City Hay Press Co.

Refined Products—
Gulf Refining Company
Humble Oil & Refining Co.
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Recorders—
Fort Worth Laboratories

Refinery Equipment—
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Continental Supply Company
Graver Corporation
Kansas City Struct. Steel Co.
Oil Conservation Engineering Co.
Republic Supply Company
Smith Separator Company
Titusville Iron Works
United Iron Works, Inc.
Wyatt Metal & Boiler Works

Refined Products—
Magnolia Petroleum Company
Texas Company

Rig Irons—
Continental Supply Company
International Supply Co.
Lee C. Moore & Co.
Oil Well Supply Co.
Parkersburg Rig & Reel Co.
Republic Supply Company

Rotaries—
International Supply Company

Rotary Rock Bits—
Continental Supply Company
Hughes Tool Co.

Rotary Fish Tail Bits—
Continental Supply Company
Pelican Well Tool & Supply Co.
Regan Forge & Engineering Co.
Republic Supply Co.
W-K-M Co.

Separators—
Butler Mfg. Co.
Continental Supply Company
Smith Separator Company
Trumble Gas Trap Co.

Structural Steel—
Butler Mfg. Co.
Kansas City Struct. Steel Co
United Iron Works, Inc.

Steel Derricks—
Continental Supply Company
Emsco Steel Products Co.
International Derrick & Equipment Company
Lee C. Moore & Co., Inc.
Superior Tube Co.

Steel Crown Blocks—
Continental Supply Company
Gulf Coast Mach. & Sup. Co.
International Derrick & Equipment Company
Lee C. Moore & Co., Inc.
Parkersburg Rig & Reel Co.
Superior Tube Co.

Steel Storage Tanks—
Butler Mfg. Co.
Continental Supply Company
Graver Corporation

Sucker Rod Lines—
D. F. Connolly Agency
Continental Supply Company

Sucker Rod Elevators—
The Cunningham Co.

Strainers—
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Emsco Steel Products Company
Layne & Bowler Co.
J. H. McEvoy & Co.
Pelican Well Tool & Supply Co.
W-K-M Co.

Sucker Rod Hooks—
The Cunningham Co.

Sucker Rod Sockets—
Bradford Motor Works
Continental Supply Company
The Cunningham Co.
Brown Welding & Machine Co.

Sucker Rods—
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Columbus Sucker Rod Co.
Continental Supply Company
D. & B. Pump & Sup. Co.
Dunn Mfg. Co.
Frick-Reid Supply Co.
S. M. Jones Co.
The National Supply Cos.
Oil Well Supply Company
J. P. Ratigan
Republic Supply Company

Swabs—
Continental Supply Company
The Cunningham Co.

Tank Bolts—
Continental Supply Company

Tanks—
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Butler Mfg. Co.
Black, Sivalls & Bryson
Columbian Steel Tank Co.
Continental Supply Company
The Brownell Co.
Gantz Tank Co.
Graver Corporation
Kansas City Structural Steel Co.
Maloney Tank Co.
Parkersburg Rig & Reel Co.
Petroleum Iron Works
United Iron Works
Wyatt Metal & Boiler Works

Tank Deadwood—
Robertson-McDonald Lumber Co.

Tank Equipment—
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Oil Conservation Engineering Co.

Temper Screws—
Burns Tool Co.

Thermometers—
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Fort Worth Laboratories

Timbers—
Robertson-MacDonald Lumber Co.

Tongs—
Bridgeport Machine Co.
Continental Supply Company
Dunn Mfg. Co.
Guiberson Corp.
LeBus Rotary Tool Works
Pelican Well Tool & Supply Co.
Wilson & Willard Mfg. Co.
W-K-M Co.

Tool Joints—
Baash-Ross Tool Company
Bridgeport Machine Co.
Continental Supply Company
Emsco Steel Products Co.
Hughes Tool Co.
Pelican Well Tool & Sup. Co.
Regan Forge & Engineering Co.
Republic Supply Co.
W-K-M Co.

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Bridgeport Machine Co.
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Frick-Reid Supply Co.
Hughes Tool Co.
International Supply Co.
Oil Well Supply Co.
Peden Iron & Steel Co.
Pelican Well Tool & Supply Co.
Regan Forge & Engineering Co.
Republic Supply Company
Star Drilling Machine Co.
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W. S. Barnickel & Co.

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Continental Supply Company
Dunn Mfg. Co.
Guiberson Corp.

Tubing Lines—
Continental Supply Company
D. F. Connolly Agency

Tubing—
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Republic Supply Company
Reading Iron Co.
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Lufkin Foundry & Machine Co.
The National Supply Cos.
Peden Iron & Steel Co.
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Pittsburgh Reinforced Brazing and Machine Company
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Reading Steel Casting Co.
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International Derrick & Equipment Company
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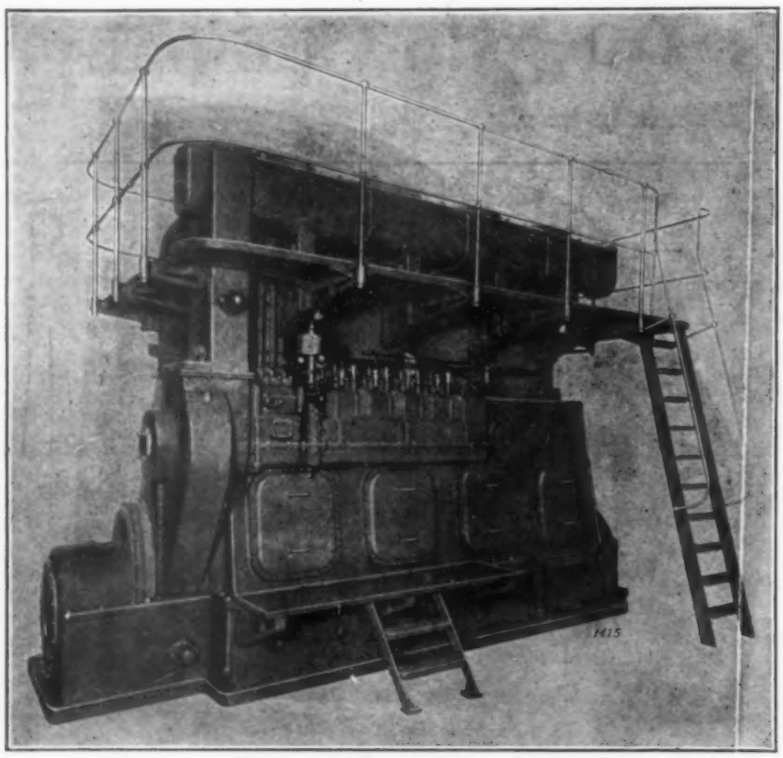

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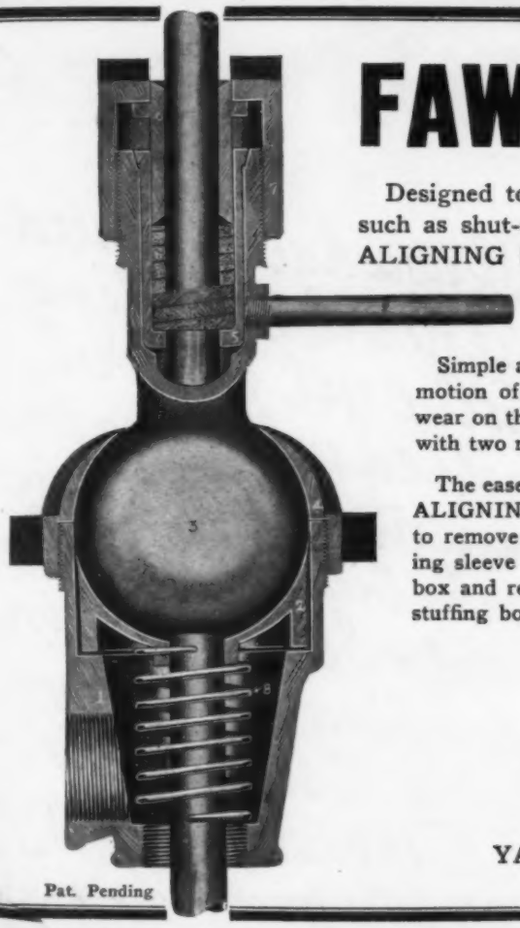

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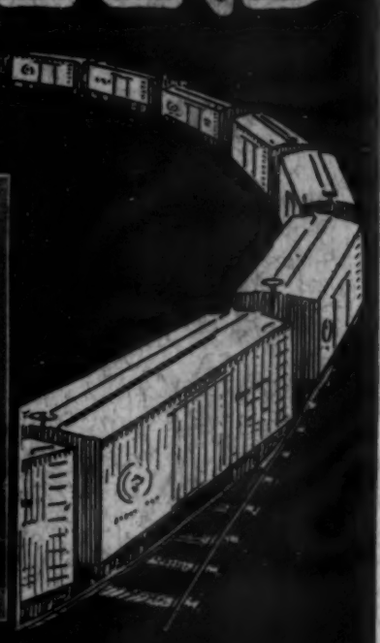

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